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PREPARED FOR

BY

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**Archaeological Survey of the Lower Hill Redevelopment Project,
City of Pittsburgh, Allegheny County, Pennsylvania**

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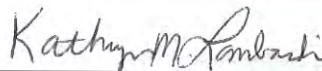
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ABSTRACT

This report presents the results of Phase I/II archaeological investigations conducted within the Lower Hill Redevelopment Project Area, in the City of Pittsburgh, Pennsylvania. The survey was conducted by Michael Baker Jr., Inc. for the Sports and Exhibition Authority of Pittsburgh and Allegheny County. Proposed project activities include reinstating the street grid within the previous location of the Civic/Mellon Arena and adjacent surface parking, which will allow redevelopment of the 11.5 ha (28.48 acre area).

The majority of the 11.5 ha (28.48 ac) Area of Potential Effects (APE) had been heavily disturbed by construction of the Civic Arena, beginning in 1957. Only the easternmost section of the APE, Lot 2-C-300 (the Melody Tent Lot), was considered to have any potential for archaeological sites. Phase I survey consisted of background research, including a study of historic maps of the Project Area, and the excavation of five backhoe trenches at locations determined by examining the historic maps. Although the entire Melody Tent Lot was considered to have a high probability for containing archaeological sites, trench locations were restricted to the northern edge of the lot, just west of Crawford Street, because the entire lot is an active and busy public parking lot serving hospital, retail, and public employees, among others. Five trenches were excavated during Phase I survey, three of which (Trenches 1, 3, and 4) contained archaeological sites.

The 29 Fulton Street site (36AL635) was identified in Trench 1. This site was identified based on the presence of two features, the demolition layer of rubble and what was preliminarily interpreted as a probable well or privy. The feature contained a large number of glass containers dating from the early-to-mid-twentieth century. The 88-90 Crawford Street site (36AL636) was identified in Trench 4 based on the presence of several features including brick foundations and walkways. Trench 4 was placed in order to examine the backyards of row houses along Crawford Street. As with the 29 Fulton Street site, the artifact assemblage consisted of glass and ceramic artifacts dating from the early-to-mid twentieth century. The Holy Trinity Church and School site (36AL637) was identified in Trench 3 based on the presence of several features, including the possible foundation corner for the school building. The artifact assemblage is similar to that recovered at the 29 Fulton Street site and the 88-90 Crawford Street site, glass and ceramic artifacts dating from the early-to-mid-twentieth century.

Based on the results of the Phase I survey, Phase II investigations were conducted in March 2013. In addition to the field excavations, intensive lot-specific land use histories of the three site areas, as well as 15 additional properties within the APE were prepared. These investigations served to assist in the interpretation and evaluation of the sites identified during the Phase I survey in order to make recommendations regarding their eligibility inclusion in the National Register of Historic Places (NRHP). Also, the research contributed to a better understanding of the Project Area.

Phase II investigations at the 29 Fulton Street site consisted of exposing 61.10 m² (657.67 ft²), encompassing 43.4 % of the site area. What was thought to be a well or privy, in fact turned out to be a large, short term historic dump containing over 2,000 artifacts and ecofacts. Based on the recovered artifacts, this historic dump was created between 1925 and 1935. Historic background research into this property revealed that the structure was constructed ca. 1890 and occupied until ca. 1958 when the buildings were demolished as part of the Civic Arena construction. The trash dump and associated artifact assemblage may relate to the 1910-1923 period when the building functioned as an Elks Lodge and multi-family residence. The archaeological investigations of the site yielded information important to Pittsburgh and Pennsylvania history, including information on the socio-economic status, ethnicity, and diet and health of the residents of this portion of the City of Pittsburgh. Therefore, the 29 Fulton Street site is considered eligible for listing in the NRHP under Criterion D. However, no additional

archaeological work is recommended since 43% of the site was investigated during the combined Phase I and Phase II survey. Further work is unlikely to yield additional significant information.

Phase II investigations at the 88-90 Crawford Street site consisted of the exposure of 41.48 m² (446.49 ft²) of the site was investigated, encompassing 27.7 % of the site area. Identified features consisted of those associated with the demolition of these structures and a brick lined privy. The majority of the 701 recovered artifacts and ecofacts originated in the ca. 1944 demolition episode that capped the site. During the fieldwork, it became apparent that the privy had been cleaned prior to being in-filled by the demolition episode. The site's artifact assemblage, dominated by glass containers, reflects a date range from the late nineteenth century to the first half of the twentieth century. The 88-90 Crawford Street site was continuously occupied from approximately 1850/1855 until ca. 1943 when the buildings were demolished. The artifacts recovered at the site reflect the twentieth century portion of this occupation, originating from a single un-stratified context. Earlier deposits were identified as stratified historic surfaces of the courtyard. The artifacts recovered from these deposits were, however, small and generally nondiagnostic. The sparse contents of these deposits suggests that there is little association between the majority of the artifact assemblage and discrete cultural deposits that resulted from the ca. 1944 demolition episode, the 88-90 Crawford Street site is recommended as not eligible for inclusion in the NRHP. Any additional excavations would only produce redundant data on the buildings that once stood at the site since valuable descriptive information about them was accessed through historic background research. Therefore, no further archaeological work is recommended.

Phase II investigations at the Holy Trinity Church and School site consisted of the exposure of 84.87 m² (913.53 ft²) of the 1,594.40 m² (17,161.98 ft²) historic lot. Excavations resulted in the exposure of primarily structural remains of the ca. 1884 school building. No structural remnants of the monastery or church were identified. The 229 artifacts and ecofacts were recovered from contexts involving the destruction of the neighborhood in 1958 and five historic features. Two of the features relate directly to activities occurring in and around the school, one identified as a window well of the school basement and one in the courtyard between the church and monastery. Artifacts recovered from these features were, as with the 88-90 Crawford Street site, small and generally non-diagnostic. The Holy Trinity Church and School site was continuously occupied from approximately 1856 until 1958 when the buildings were sold just prior to their demolition. Based on the archaeological findings and the background research, the Holy Trinity Church and School site is recommended as not eligible for nomination to the NRHP. Historic background research into the church property yielded information on the history of the structures once located on this lot. Additional excavations at the site would result in the recovery of redundant data on the construction and uses of the church, school, and monastery. Therefore, no further archaeological work is recommended.

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INTRODUCTION

Project Purpose and Administration

In 2007, the Sports & Exhibition Authority of Pittsburgh and Allegheny County (SEA) along with the City, County, and Commonwealth reached a basic understanding with the Penguins regarding the redevelopment of the Lower Hill/Civic Arena site. The understanding contained terms for the construction of a new arena adjacent to the now-raised Civic Arena, and reinstating the street grid within the previous location of the Civic Arena and adjacent surface parking, which will allow redevelopment of the 11.5 ha (28.48 ac) area. The parties agreed to commence the drawdown period within two years after the demolition of the Civic Arena, as it post-dated the construction of the new arena.

As a state undertaking, the proposed Lower Hill Redevelopment project requires compliance with the Commonwealth of Pennsylvania's History Code and Historic Preservation Act (37 Pa. Cons. Stat. Section 500 *et seq.*, 1995). To date, no federal involvement that invokes Section 106 of the National Historic Preservation Act has occurred. However, the SEA elected to follow the procedures as defined for Section 106 undertakings excluding participation by the Advisory Council on Historic Preservation or a Federal agency responsible for oversight of the process.

The Cultural Resources Section of Michael Baker Jr., Inc., Pittsburgh, Pennsylvania conducted Phase I/II archaeological investigations within the archaeological Area of Potential Effects (APE) August 27-31, 2012 and March 20-29, 2013. This report presents the results of background research and fieldwork performed as part of the archaeological survey of the Lower Hill Redevelopment project in the City of Pittsburgh, Allegheny County, Pennsylvania.

Area of Potential Effects

The proposed APE encompasses three parcels situated within the Hill District neighborhood in the 2nd and 3rd Wards of the City of Pittsburgh, Allegheny County, Pennsylvania (Figure 1). The parcels are designated in the Register of Deeds Office of Allegheny County as Lot 2-B-400 (Parcel 1), Lot 2-C-400 (Parcel 2), and Lot 2-C-300 (Parcel 3). Lot 2-B-400 is the site of a parking lot southwest of the arena that is bounded by Washington Place to the east, Centre Avenue to the south, and Crosstown Boulevard to the west. It measures approximately 0.40 ha (0.99 ac). Lot 2-C-400 is the site of the former Civic/Mellon Arena (Arena) located at 66 Mario Lemieux Place. It is bounded by Bedford Avenue to the north, Centre Avenue to the south, Washington Place to the west, and Lot 2-C-300 to the east. The lot covers an area of approximately 7.51 ha (18.57 ac). Lot 2-C-300 is the site of the Melody Tent Lot that is bounded by Bedford Street to the north, Crawford Street to the east, Centre Avenue to the south, and Lot 2-C-400 to the west. It measures approximately 3.96 ha (9.8 ac).

In total, the parcels comprising the APE measure approximately 11.5 ha (28.48 ac). The wedge-shaped APE is bounded by Bedford Avenue on the north, Crawford Street on the east, Centre Avenue on the south, and Crosstown Boulevard on the west, with Washington Place cross-cutting the westernmost portion of the Project Area. The APE is situated on the 7.5' USGS *Pittsburgh West, Pennsylvania* and the adjacent *Pittsburgh East, Pennsylvania* quadrangles (Figure 2).

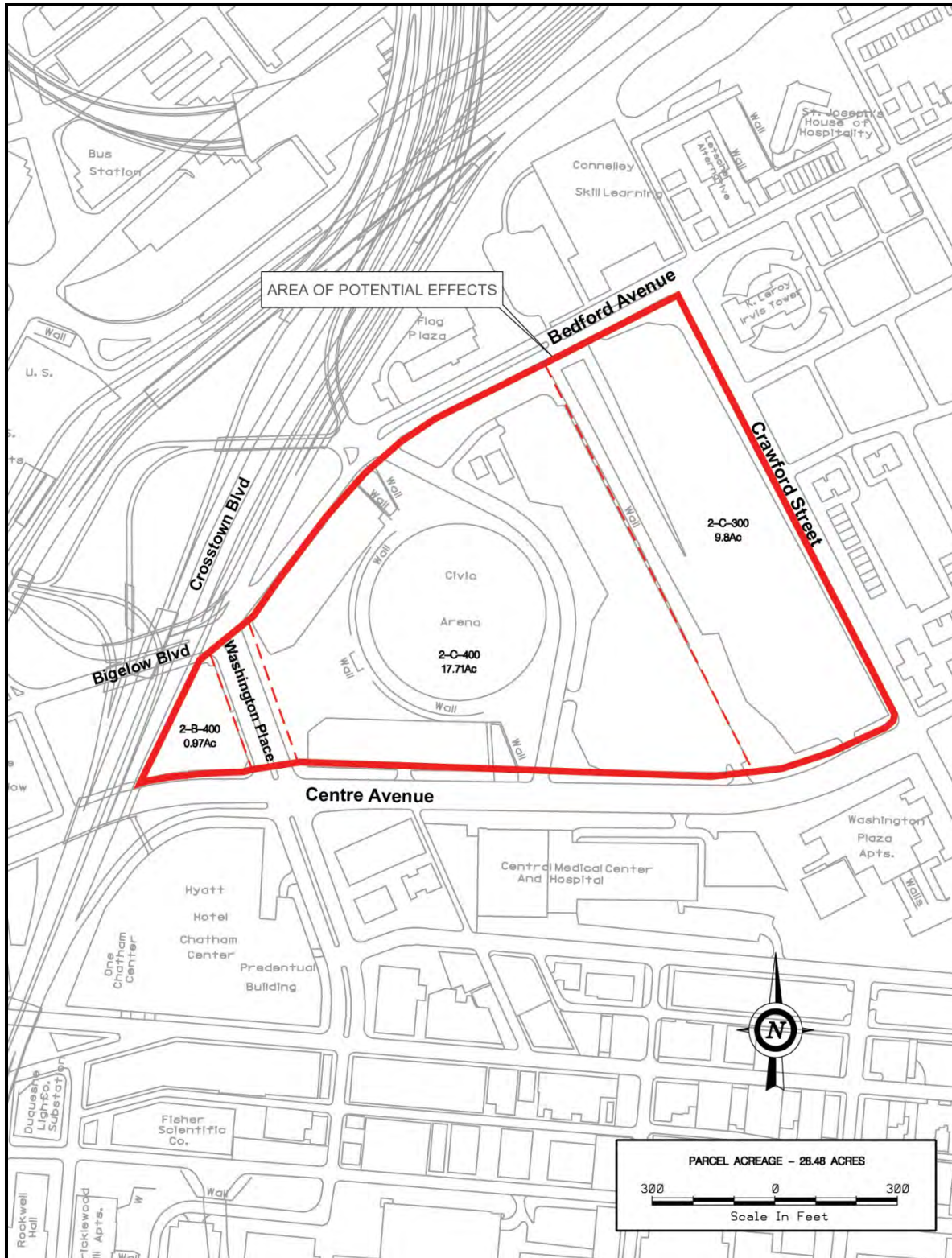


Figure 1: Area of Potential Effects showing the three contributing parcels.

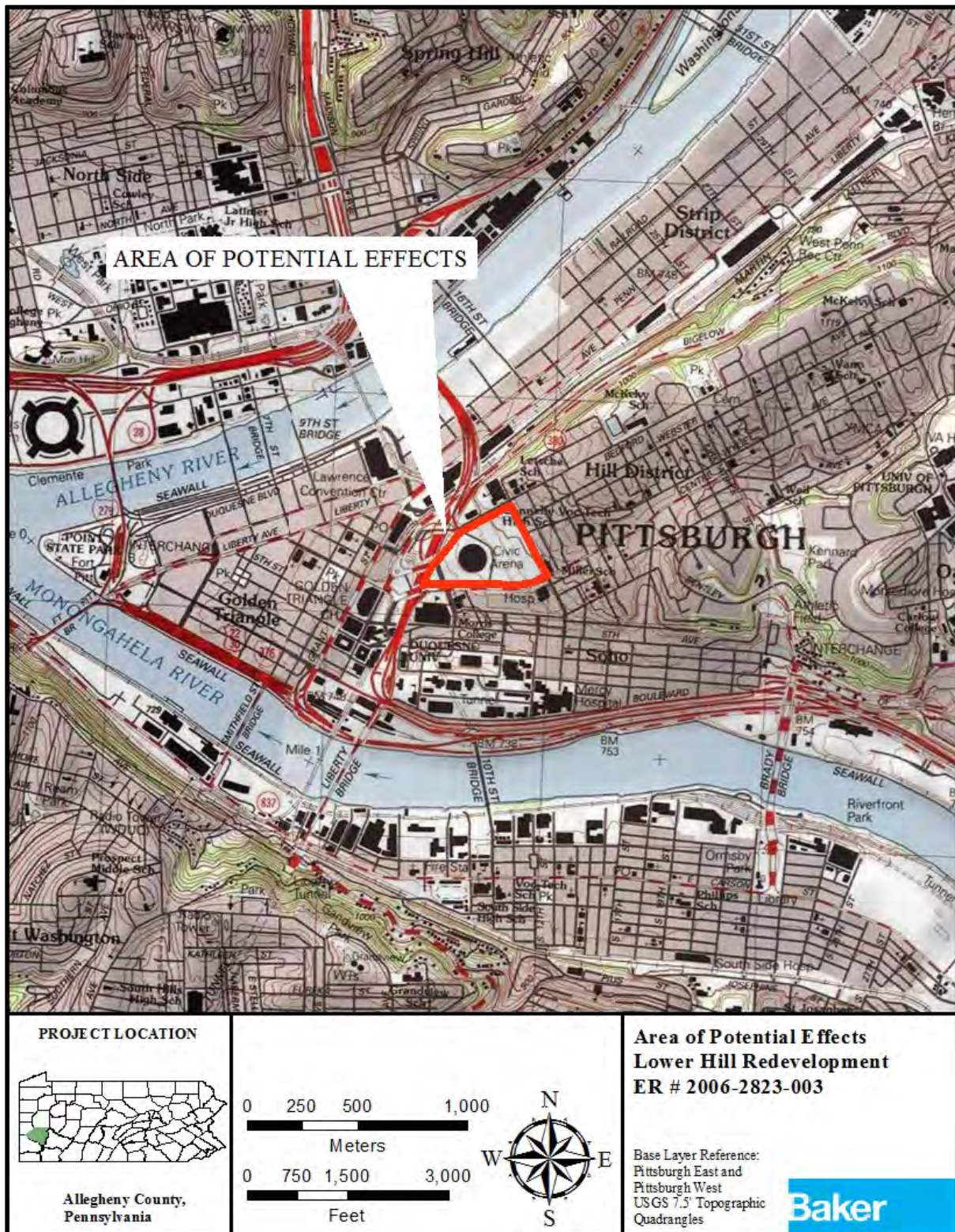


Figure 2: The proposed Area of Potential Effects shown on the Pittsburgh East, Pennsylvania 7.5' U.S.G.S quadrangle maps.

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PROJECT DESCRIPTION AND LOCATION

Physiography

The Lower Hill District Redevelopment Project's APE is situated within the Pittsburgh Low Plateau section of the Appalachian Plateaus physiographic province (Figure 3). The Appalachian Plateau is a broad northeast to southwest trending highland that extends through much of the states of New York, Pennsylvania, and West Virginia and some of Alabama, Kentucky, Ohio, and Tennessee (Pirkle and Yoho 1977). It is bounded by the Valley and Ridge physiographic province to the east and the Interior Low Plateau and Central Lowland provinces to the north and west (Fennemen and Johnson 1946). In Pennsylvania, the Appalachian Plateaus includes the Northwestern Glaciated, High Plateau, Pittsburgh Low Plateau, Waynesburg Hills, Allegheny Mountain, Allegheny Front, Deep Valleys, Glaciated High Plateau, Glaciated Low Plateau, and Glaciated Pocono Plateau sections.

The Pittsburgh Low Plateau section covers much of western and southwestern Pennsylvania, including all of Armstrong County, large portions of Allegheny, Beaver, Butler, Clarion, Clearfield, Indiana, Jefferson, and Westmoreland Counties, and smaller portions of Cambria, Cameron, Clinton, Elk, Fayette, Lawrence, Venango, and Washington Counties (Sevon 2000). It consists of a smooth undulating surface cut by numerous, narrow and relatively shallow stream valleys. The region exhibits low to moderate relief of less than 60.96 m (200 ft) within the uplands and as much as 182.88 m (600 ft) between valley bottoms and upland surfaces. Valley sides are moderately steep except in the more gently-sloped upper reaches of streams. Elevations range from 201.17 m to 518.16 m (660 to 1,700 ft) above sea level.

The APE is also located within 1.6 km (1 mi) of the northern boundary of the Waynesburg Hills section. This section is characterized by a very hilly terrain with narrow hilltops and steep-sloped, narrow valleys (Sevon 2000). Relief is moderate, ranging between 182.88 and 304.80 m (600-1000 ft) while elevations reach between 258.47 and 499.26 m (848-1,638 ft) above sea level.

Bedrock Geology

The bedrock underlying the APE is comprised of the Pennsylvanian-aged (290-323 million years) Casselman Formation of the Conemaugh Group (Figure 4). This formation consists of cyclical sequences of sandstone, shale, siltstone, red beds, thin impure limestone, and thin non-persistent coal (Berg et al. 1980). Natural resources found within the Conemaugh Group, Casselman Formation, and nearby bedrock units such as the Monongahela Group provided opportunities for economic development during the historic growth of Pittsburgh. In the nearby Schenley Heights region of the Hill District, the Pittsburgh Coal seam at the base of the Monongahela Group provided an early source of coal for Pittsburgh (Carlisle et al. 1991; Wagner et al. 1970). In the adjoining Crawford-Roberts section of the Lower Hill District, the top rock stratum was identified as thick sandstone that belonged to the Casselman Formation (AWK Consulting Engineers 1990). Carlisle et al. (1991) suggested that this sandstone may have been quarried locally for use as construction material for buildings and building foundations. Similarly, clays found in the Conemaugh Group may have provided raw materials for the Keiff brickworks, which was in operation prior to 1872 (Carlisle et al. 1991).

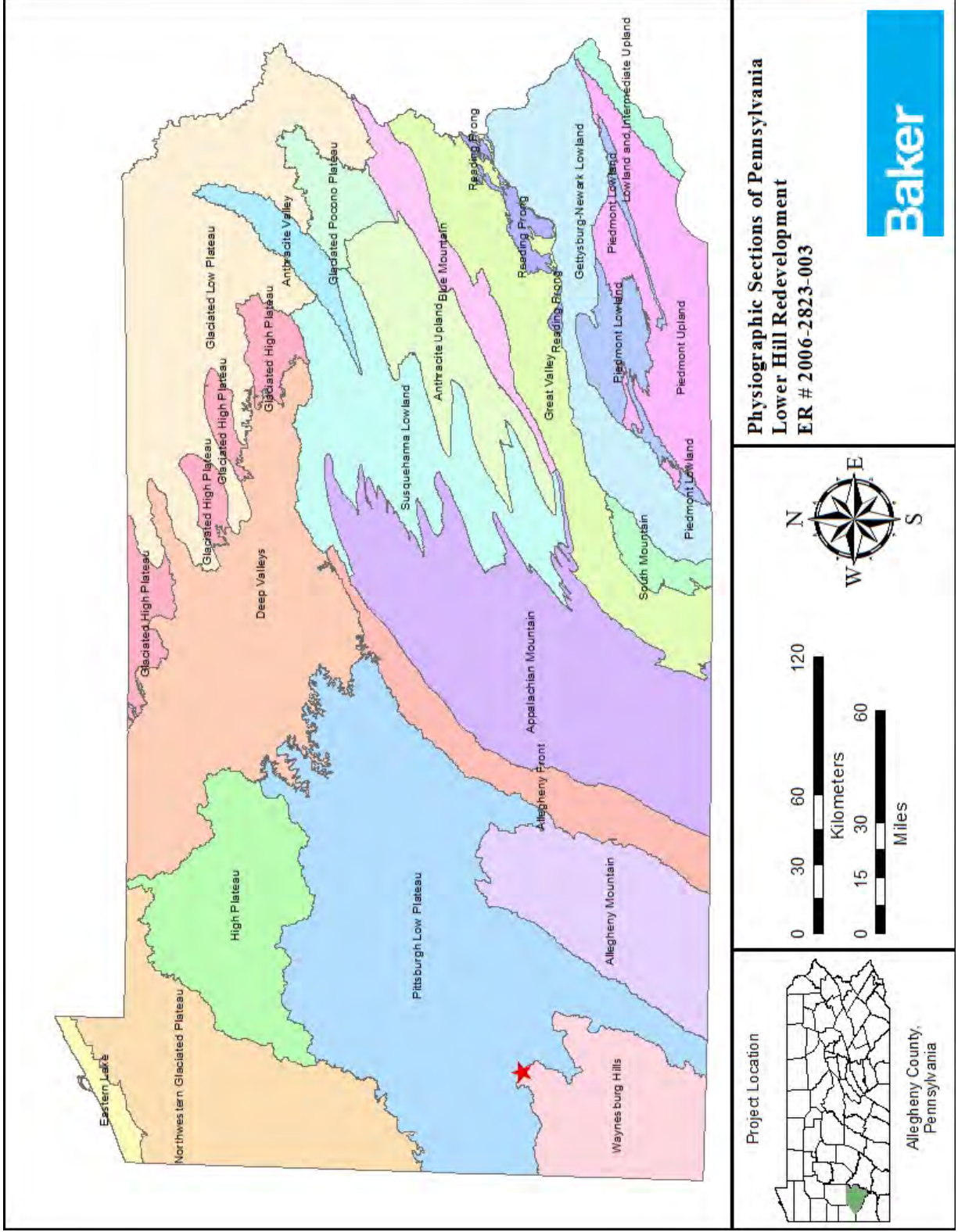


Figure 3: Physiographic Sections of Pennsylvania in relation to the Lower Hill District Redevelopment Project's Location.

Soils

Soils in and near the Lower Hill District Redevelopment Project Area are classified as Urban due to the highly developed and urbanized land in this section of Pittsburgh. Urban soils develop from human activities on the landscape, such as grading, compaction, in-filling, and the introduction of non-native soils (United States Environmental Protection Agency 2011). Such activities result in the mixing of soil profiles and alter the physical and chemical characteristics of the native soils.

According to Newbury et al. (1981), soils in the APE are assigned to three mapping units, UCB (Urban land-Culleoka Complex, gently sloping), UCD (Urban land-Culleoka complex, moderately sloping), and URB (Urban land-Rainsboro Complex) (Figure 5). The predominant soil unit is UCD. It is a well-drained soil composed of 50% Urban land and 40% Culleoka and similar soils on 8 to 25% slopes. Typical profiles consist of approximately 66.04 cm (26 in) of channery silt loam underlain by 12.7 cm (5 in) of very channery silt loam. Bedrock occurs at a depth of 78.74 to 83.82 cm (31-33 in). UCB is mapped only along a small section of the eastern boundary of the APE. Its composition and profile is similar to UCD soil unit, although it occurs on 0 to 8% slopes. URB is mapped on the western-most tip of the wedge-shaped APE. It is a moderately well-drained soil composed of 75% Urban land, 15% Rainsboro and similar soils, and 5% minor components on 0 to 8% slopes. Typical profile consists of 101.6 cm (40 in) of silt loam underlain by 50.8 cm (20 in) of sandy clay loam below which gravelly sandy loam occurs to a depth of 182.9 cm (72 in).

Climate

Allegheny County has a humid, continental climate characterized by a great annual range of temperature with hot summers and cold winters. Summers have high monthly mean temperatures as well as high maximum temperatures, small diurnal ranges, and high humidity. The average annual temperature near the APE, as measured at the Greater Pittsburgh International Airport, is approximately 10.2°C (50.4°F). Summers are hot with mean monthly temperatures for June, July, and August near 21.2°C (70.2°F). Winters are cold with the mean monthly temperature for December, January, and February at approximately -1.7°C (28.9°F).

Although there is no seasonal dry period, approximately 55% of the annual precipitation falls during the summer months, with total annual precipitation averaging 92 cm (36.2 in). The driest month of the year is November with an average of 5.9 cm (2.3 in) while July is the wettest month with an average of 10.2 cm (3.8 in) (Ruffner 1985). Typically, prevailing westerly winds bring storm systems in from the mid-continent up the Ohio River drainage into Pennsylvania (Dailey 1975), although the region occasionally experiences effects from tropical storm systems originating in the Gulf of Mexico and Atlantic Ocean. The growing season, or the interval between the last frost in the spring and the first frost in the autumn, averages 180 days in and around the APE (Newbury et al. 1981:91).



Figure 4: Bedrock Geology associated with the Lower Hill District Redevelopment Project's APE.

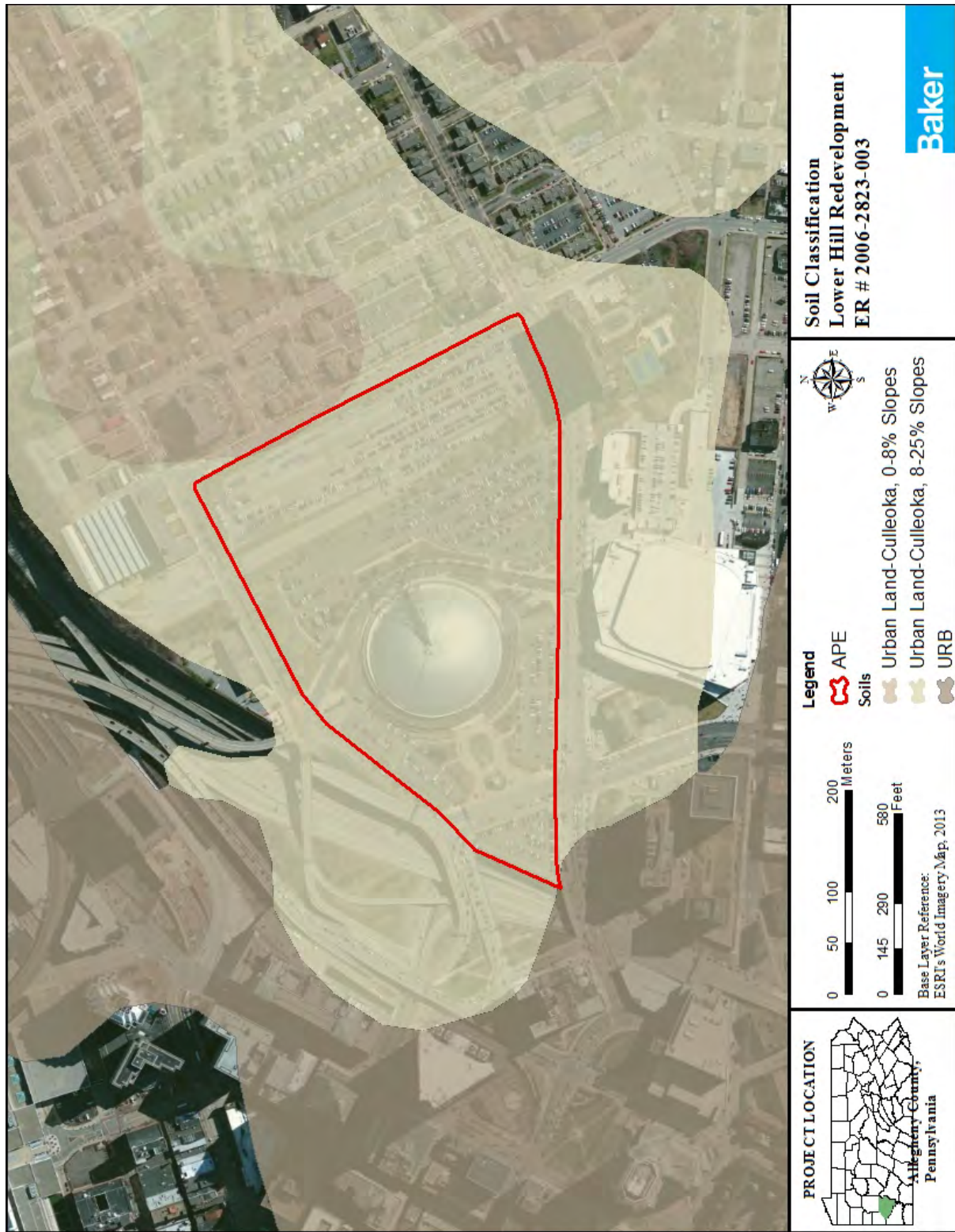


Figure 5: Soils associated with the Lower Hill District Redevelopment Project's APE.

Flora and Fauna

Allegheny County lies in the Appalachian Oak forest, a widespread and diverse forest found over much of southern Pennsylvania (Braun 1950). The Society for American Foresters (1954) recognize at least 12 distinct forest cover types within this region, each characterized by a unique combination of one or more dominant species. Chestnut oak and scarlet oak dominate drier regions while pure stands of chestnut oak occupy dry rocky ridges. Other species characteristic of dry regions includes the black oak, pignut hickory, and black gum. Prior to devastating blight in the early 1900s, the American chestnut was also common in these areas. Although, the white oak and northern red oak also occur on dry, exposed slopes, they are most common on northern and eastern slopes, coves, ravines, and valley floors (Smith 1989). Associated trees include tulip poplar, sweet birch, bitternut hickory, and a number of species representative of the Northern Hardwood Forest, such as white pine, hemlock, sugar maple, beech, and American basswood (Smith 1989; Utech 1989).

The regional animal population is typical of the Carolinian assemblage, comprising a wide range of terrestrial and avian fauna. Common feral mammals include the white-tailed deer, black bear, gray and red fox, several species of squirrels and bats, skunk, chipmunk, groundhog, raccoon, cottontail rabbit, porcupine, opossum, meadow and woodland voles, meadow jumping and white-footed mice, mink, and muskrat (Doutt et al. 1977). This inventory included mountain lion, timber wolf, elk, wildcat, otter, wild turkey, and passenger pigeon less than 200 years ago.

The avifauna perhaps reflects greater change during the past two centuries than the mammalian population. Today, open area species dominate whereas 200 years ago forest-dwelling birds were common, including migratory waterfowl such as swans, ducks, and geese. Presently, over 30 species of birds and three species of bats make up the regional avifaunal assemblage. Among the most common indigenous species are the ruffed grouse, Carolina wren, cardinal, robin, and red-bellied woodpecker (Sutton 1928). Additionally, several species of birds were introduced during historic times, including the rock dove, sparrow, ringneck pheasant, and starling.

Terrestrial and riverine reptiles are largely restricted to the black snake, garter snake, copperhead snake, and box and snapping turtles. The amphibian population generally includes tree frogs, bullfrogs, and toads. Freshwater mollusks, while apparently abundant during prehistoric times, are now almost wholly absent. No fewer than 159 species of fish have been recorded in Pennsylvania (Cooper 1983). The most common species to the region include perch, pike, bass, trout, and carp.

Present Land Use Patterns

The Lower Hill District APE has been heavily altered by urban development associated with the growth of Pittsburgh. Such development has seen the area change from agricultural land, to city neighborhood, and, currently, to commercial space. Until recently, the Arena, a high occupancy building used for sporting and entertainment events, covered a large portion of the APE. The remaining portions of the APE were used for parking by patrons of the Arena and nearby businesses and by commuters working in downtown Pittsburgh. Today, the APE is strictly used or being developed as a parking facility prior to the planned changes associated with the Lower Hill District Redevelopment project.

PREHISTORIC AND HISTORIC LAND-USE CONTEXT

Prehistoric Land-Use

EARLY MAN AND PALEOINDIAN PERIODS (15,000-8500 B.C.)

The Early Man, or Pre-Clovis, and Paleoindian periods encompass the end of the Pleistocene and include the waning stadial of the Late Wisconsinan glaciation. This was a time of full glacial climate characterized by a cold, dry, and windy environment (Watts 1979:458-459). A grassy tundra was in place in southeastern Pennsylvania at Longswamp on the edge of the Great Valley in Berks County, ca. 60 km (37.3 mi) south of the ice front, as late as ca. 13,000 B.C. The climate in southwestern Pennsylvania can be seen as approximating that in eastern Pennsylvania. The Project Area is situated ca. 70 km (44 mi) southeast of the terminal Wisconsinan moraine. The waning of the ice at ca. 13,500 B.C. marks the first evidence for climatic change at the end of the full glacial. This event is marked by a birch pollen peak in a pine-spruce dominated pollen assemblage. This event is followed by a relatively long period which displayed a pollen assemblage indicative of an open forest tundra dominated by stands of white spruce intermingled with dwarf shrubs and wet meadows with tall herbs. This floral assemblage persisted until ca. 11,310 B.C., when it was succeeded by an abrupt and large increase in both woodland and aquatic species pollen.

The fauna present during the Paleoindian period was dominated by a mosaic community of boreal and temperate species that appears to have developed in response to the moderate but somewhat cooler climate that characterized the terminal Pleistocene (Guilday et al. 1964:174-180). Although megafauna such as mammoths and mastodons were available to be hunted, evidence gathered from settlement pattern studies and projectile point distributions in the northern part of the Midwest and Northeast, as well as ethnographic analogs, suggest an overwhelming dependence on caribou in the subsistence activities of the Paleoindian peoples across the Northeast and upper Midwest. This posited dependence on caribou may have been augmented to some extent by the taking of white-tailed deer in what appear to have been more temperate locales, such as the Upper and Middle Ohio River Valley and the environs of Chesapeake Bay. However, the most distinct diagnostic tool of the Paleoindian tool kit, the fluted lanceolate projectile point/knife (pp/k), appears to have been hafted and used as a bayonet, and as such this unbarbed projectile would have been particularly unsuited for the efficient ambushing and taking of the characteristically solitary white-tailed deer. Conversely, this projectile point is most efficacious for bringing down gregarious herd ungulates, like caribou, wherein a premium is placed on the number of animals that can be rapidly wounded with the smallest expenditure of energy (Caldwell 1958).

Evidence from Meadowcroft Rockshelter (36Wh297) in the Cross Creek Valley, Washington County, Pennsylvania, suggests that early hunters and foragers may have been present in this portion of the Upper Ohio River Valley by 17,650 B.C., although the date has a large sigma of error of 2,400 years (Adovasio and Carlisle 1986:7). A series of sequential dates from higher levels in lower Stratum IIa at Meadowcroft Rockshelter range from 14,225 B.C. (in direct association with lithic tools and debitage) to 10,850 B.C. (Adovasio and Carlisle 1986:9). Although still considered to be controversial, these dates continue to represent the best evidence for the presence of "Pre-Clovis" populations in the eastern United States following the Woodfordian maximum.

Gramly and Funk (1990:5-12) note that human populations during the terminal Pleistocene in the Northeast were either small or belated arrivals (or both) when compared with the density of fluted pp/ks and Paleoindian sites in the Southeast. Few sites, attributable to pioneering hunting groups, are known, however. In the formerly glaciated Northeast, Paleoindians apparently favored outwash terraces in valleys of second-, third- and fourth-order streams for the location of habitation sites, seemingly ignoring

flood plains of streams and larger rivers. Major fluted pp/k sites tend to occur on riverine terraces but usually in areas on or south of the terminal Wisconsinan moraine.

Gramly and Funk (1990:13-16) recognize five types of Paleoindian sites in the Northeast including quarry-workshops, habitations, kill-butcherer sites, burials or caches, and isolated/stray finds. Habitation sites frequently display multiple "hot spots" of artifact concentrations separated by relatively sterile areas. These generally range in size from 6 to 20 m (19.7 to 65.6 ft) and are thought to represent the sites of individual band encampments or individual tent sites. Carr (1989:21-24), in his analysis of the Shoop site, has identified a number of attributes of site location and configurations and tool kit variability that seem to distinguish the settlement patterns of eastern Paleoindian sites in the largely glaciated north (Great Lakes and New England) from those to the south. Citing Custer's (1984) model, which is based on Gardner's earlier work, Carr sees two lithic procurement strategies in the East, the first a cyclical pattern in which seasonal rounds are focused on a single large quarry with base camps located at the quarry. This pattern seems to typify Paleoindian sites in the South. The second strategy is a serial pattern in which a number of quarries are utilized and base camps are located in settings that are especially favorable for hunting. This pattern exhibits sites displaying a greater variety of lithic raw material sources but with one type seeming to dominate and composing 70-80% of the raw material in the assemblage. Sites in the North tend to be defined by this pattern. There are some large sites not situated at quarries, and some are not directly associated with apparently favorable hunting locales. The tool kits tend to exhibit a relatively large number of finished pp/ks. Some sites display large quantities of tools, and a high ratio of tools to unutilized debitage.

Diagnostic artifacts of the so-called pre-Clovis time period, ca. 15,000 - 10,000 B.C., are extremely difficult to separate from later cultural materials even by an experienced analyst (see Boldurian 1985). The Miller Lanceolate pp/k, putatively diagnostic of the close of this pre-Paleoindian interlude, is dated at Meadowcroft Rockshelter (36Wh297) between 10,850 and 9350 B.C. (Adovasio and Carlisle 1986:9). This pp/k form has also been identified at the nearby Pershina site (36Wh608) in the Raccoon Creek basin and at the Krajacic site (36Wh35), situated on the drainage divide between Cross Creek and Buffalo Creek to the south of the immediate study area (Boldurian 1985:129, 303).

So-called Plano pp/ks, relatively long-stemmed and lanceolate forms, are believed to be diagnostic of the close of the Paleoindian period in the Great Lakes-St. Lawrence River drainage system. These forms were putatively hafted and utilized like fluted pp/ks as thrusting spears or bayonets for hunting big game. Buker (1970b:9) reports a few stemmed Plano pp/k varieties for the Chartiers Creek Valley. Boldurian (1985:131, 134) reports seven McConnell Lanceolate-like and six Sawmill Stemmed-like pp/ks from the upland Krajacic site (36Wh351). These specimens, if correctly identified, could indicate the presence of a relatively open woodland or parkland in extreme western Pennsylvania at the beginning of the Holocene or at least an occasional foray of these big game hunters into the lower-most portion of the Upper Ohio River Valley.

EARLY ARCHAIC PERIOD (8500-6000 B.C.)

The Early Archaic immigrants appear to have radiated from the Appalachian Mid-South in successive waves. These people are primarily interpreted to have been hunters of the white-tailed deer that ranged in the open white pine-oak forest. With the exception of a change in projectile point styles to types more suited to the taking of white-tailed deer in ambush (i.e., various barbed and tanged forms), the lithic tool kit of the Early Archaic hunters (except for the addition of flaked stone adzes/celts) remained essentially the same as that of the Paleoindians, suggesting direct cultural derivation and continuity. The technology utilized in the processing of meat, hides, bones, and other products, however, does not appear to have changed substantially, as the balance of the Early Archaic tool kits remained essentially the same.

Modern temperate faunal evidence at Hosterman's Pit in the Ridge and Valley physiographic province in central Pennsylvania (Guilday 1967) suggests the presence of a more-or-less modern forest east and south of the Allegheny Front by ca. 7800 B.C., and by extension, west of the Allegheny Mountain section at least in the unglaciated portions of southwestern Pennsylvania. A mixed mesophytic forest was clearly in place in the lower Upper Ohio River Valley shortly after the initiation of the Early Archaic period if not sooner.

Projectile point/knife forms diagnostic of two of three of Tuck's (1974: 75-77) Early Archaic period stylistic horizons are regularly reported from the Upper Ohio River Valley area. These include the side-notched Big Sandy and corner-notched Kirk horizons. Most numerous of the Early Archaic pp/ks are the various bifurcated base forms of Chapman's (1975: 236-268) late Early Archaic bifurcate base point horizon/tradition. The Big Sandy horizon is represented by a series of side-notched varieties including the transitional Hardaway Side-Notched form, the Kessell Side-Notched type, and the Big Sandy I variety (Peck and Painter 1984: 21, 23, 27; Broyles 1971: 61; Futato 1977: 38).

Tuck (1974: 76-77) speculates that the side-notched Big Sandy morph evolved into the corner-notched Kirk forms. The various Early Archaic corner-notched forms are far more numerous than the earlier, ancestral lanceolate and side-notched types and display a much wider distribution across the eastern United States. Tuck (1974: 76-77) suggests that this was the result of the warm climatic optimum during the latter half of the Early Archaic interlude. Chapman (1976, 1977) has divided the Early Archaic corner-notched varieties into an older Lower Kirk Corner-Notched Cluster and a younger Upper Kirk Corner-Notched Cluster. Included in the Lower Kirk Corner-Notched Cluster are the St. Charles, Plevna, Lost Lake, and Charleston Corner-Notched types. Projectile point/knife forms assigned to both the small and large variants of the Kirk Corner-Notched type and the Palmer Corner-Notched and Decatur categories are all considered by Chapman (1976, 1977) to be varieties of the basic Upper Kirk Corner-Notched Cluster theme.

The MacCorkle Stemmed type is seen by Broyles (1971:29, 71) and Chapman (1975:245; 1978:73-74) as a transitional form between the large variety Kirk Corner-Notched and the bifurcated base St. Albans type. A so-called "Nottoway" bifurcate, which appears to be nearly identical to the MacCorkle form, dates to the latter part of this period. The Kanawha Stemmed type is the last named form in the bifurcate base tradition theme.

A second pp/k theme appears to be evolving in a parallel fashion with the late Early Archaic bifurcate base point tradition. The Kirk Stemmed form seems to represent the early end of this cline, while the later square-stemmed Kirk Serrated variety appears in the terminal Early Archaic period (Broyles 1971:29; Chapman 1975:211, Table 26, 212; 1978:45). This latter variety persists through the early part of the succeeding Middle Archaic period.

Early Archaic period pp/ks are recorded in some frequency in the Upper Ohio River Valley, particularly those affiliated with Chapman's (1975) bifurcate base point horizon/tradition. The presence of a high frequency of Early Archaic forms, especially those displaying bifurcated stem bases on the Glaciated Allegheny Plateau of northwestern Pennsylvania indicates the presence there of large numbers of mast producing hardwoods by the beginning of the seventh millennium B.C. (Johnson et al 1979:Figure 7; 60-61). Buker (1970a 4-5) reports scattered finds of Early Archaic Kirk Corner-Notched and Kirk Stemmed (Serrated?) pp/ks in both the Chartiers and Raccoon creek drainages. Eisert (1981:28) notes one Kirk Corner-Notched specimen from the upland Wylie No. 1 site (36Wh274). Slightly farther afield, Fitzgibbons (1982:109, Table 4) and Boldurian (1985:135) report numerous early Early Archaic forms from two upland locales along the rim of the Cross Creek drainage basin. These pp/ks include Palmer, Charleston Corner-Notched, Kirk Corner-Notched, and Big Sandy I types. Johnson (Johnson et al. 1979:59-60) has suggested that in the Glaciated Allegheny Plateau section of northwestern Pennsylvania,

the dramatic increase in the numbers of later Early Archaic pp/ks may be linked to the arrival in the area of nut-bearing trees other than oak. This would have provided a broader subsistence base for deer-hunting human populations. This event may be correlated to the beginning of the essentially modern mixed mesophytic forest in the general study area.

MIDDLE ARCHAIC PERIOD (6000-4000 B.C.)

The Middle Archaic period corresponds to the early portion of the Atlantic episode, a time of moist, warm climatic conditions when the temperature was warmer than at present. In the Upper Ohio River Valley the initial Middle Archaic period is represented by the Stanly Stemmed form, representing the end of the bifurcated base continuum, and the late Kirk Serrated form.

During the latter part of the Middle Archaic period, there appears to be an Amos Corner-Notched-like presence in the Upper Ohio River Valley. Previously thought to be an early Early Archaic form (Broyles 1971:55), Amos pp/ks are now known to be radiometrically dated to 4790 and 4365 B.C. at the type station, the Amos Power Plant site (46Pu60).

The initial Middle Archaic Stanly Stemmed type is relatively infrequently recovered only from the lower Upper Ohio River Valley. No examples are reported from the Chartiers and Raccoon creeks study area, and only one is noted for the nearby Cross Creek drainage (Fitzgibbons 1982:109, Table 4). Only the Big Sandy II/Otter Creek/Pymatuning Side-Notched type is reported for the wider study area (Buker 1970b:9-10) with, however, no statement regarding its areal distribution or absolute frequency of occurrence. Mayer-Oakes (1954:57) illustrates a single example from the Scarem site (36Wh22), situated on a Pleistocene terrace above Raccoon Creek. Fitzgibbons (1982:109, Table 4) reports 23 Big Sandy II pp/ks from the upland Mungai Farm locale in the Cross Creek drainage.

LATE ARCHAIC PERIOD (4000-2000/1900 B.C.)

The Late Archaic period, as configured here, brackets the latter part of the Atlantic episode and first half of the succeeding Sub-Boreal episode. The precise nature of the environment in the greater Middle Atlantic region is not clearly understood. Carbone, Custer, and their allies (e.g., Custer 1989; Curry and Custer 1982) have argued that the Sub-Boreal episode represents a warm-dry interval, following the warm-moist Atlantic episode, and is dated between ca. 3000 and 800 B.C. More particularly, they have stressed that the interval between 2200 and 800/200 B.C. represents the post-glacial xerothermic maximum. In short, the post-Pleistocene climatic optimum in the East is interpreted as occurring during the earlier Atlantic episode between ca. 7000/5500 B.C. and 3000/2000 B.C. This correlates with palynological and microfaunal data from the northern Great Plains and Midwest, where the Altithermal maximum occurred between 4500 B.C. and 4200 B.C.

In the greater Northeast, Middle Atlantic, and Upper Ohio River Valley regions, the latter part of the Late Archaic period apparently represents the apogee of the post-glacial Mid-Holocene climatic maximum, characterized by conditions that were considerably drier and milder than any other which has occurred since the end of the Pleistocene. The amelioration of the climate during the latter part of the Late Archaic interlude may have facilitated the movement of late Laurentian tradition and succeeding narrow point tradition Lamoka complex groups from the northern Allegheny High Plateau section in central and western New York to cross over into the south- and west-flowing tributaries of the Allegheny River (see Johnson et al. 1979).

The first 15 centuries of the Late Archaic period in western Pennsylvania are dominated by variously notched pp/ks of the Laurentian tradition Brewerton and Otter Creek series. The Otter Creek forms are dated back into the latter part of the Middle Archaic period and into the early part of the Late Archaic

interlude. Early Late Archaic Laurentian tradition Brewerton and Brewerton-like pp/ks are common in the wider study area (Buker 1970b:11) as they are elsewhere in the Upper Ohio River Valley.

The latter part of the Late Archaic period in the lower part of the Upper Ohio River Valley is primarily represented by pp/k forms ascribed to the Steubenville Lanceolate and Steubenville Stemmed types. These pp/k forms are one of the diagnostics of the Panhandle Archaic complex of the lower Upper Ohio River Valley (Mayer-Oakes 1955:132-136). Steubenville Stemmed and Lanceolate forms appear frequently in the excavations of later components at sites along the Ohio River and in surface collections derived from eroded bluff tops along the mainstem valley, particularly around the mouth of Raccoon Creek (Emil Alam 1980, pers. comm.).

TERMINAL ARCHAIC PERIOD (1800-1000 B.C.)

The Terminal Archaic period is characterized by pp/k forms diagnostic of the broadspear/ Susquehanna tradition and the descendant and derivative fishtail tradition. The various pp/k forms are related in an ancestral-descendant fashion to the terminal Late Archaic/initial Terminal Archaic Savannah River Stemmed/Koens-Crispin/Lehigh Broad form, although some varieties clearly represent parallel developments of morphologically distinct types in more-or-less separate areas. Carved stone bowls of steatite (and, occasionally, sandstone in the Ohio River drainage basin) are normally associated with later broadspear/Susquehanna and fishtail tradition components, particularly those characterized by Susquehanna Broad, Dry Brook and Orient Fishtail pp/ks. The pp/ks represented in the broadspear/Susquehanna tradition include the Savannah River Stemmed/Koens-Crispin/Lehigh Broad continuum, Perkiomen Broad, and Susquehanna Broad forms. The derivative fishtail varieties include the Dry Brook and the Early Woodland period Orient and "Forest Notched" types. The latter form seems to be an undescribed Upper Ohio River variant. Susquehanna Broad pp/ks either evolved into descendent Early Woodland Orient Fishtail or Forest Notched forms or were replaced by Meadowood or still other Early Woodland pp/k types.

Notably, early experimental ceramics seem to be associated with several broadspear/Susquehanna and fishtail tradition components in the West Branch of the Susquehanna River Valley. Low-fired, untempered sherds are putatively associated with the Canfield complex at the Canfield Island site (36Ly37). More certainly, early quartz/sand-tempered cord-marked ceramics and carved steatite bowl fragments are associated with the Susquehanna Broad component at the Canfield Island site (Bressler et al. 1983:28; 42; 43, Table 6; 51). At the adjacent Bull Run site (36Ly119), an Orient Fishtail component is associated with steatite-tempered Marcey Creek Plain ceramics (Bressler 1980:38-40, Table 1).

Terminal Archaic pp/ks of the broadspear or Susquehanna tradition are apparently relatively rare in the general area. George (1991:81, Figure 4) lists five Susquehanna tradition sites for the same general study area, including three loci on the mainstem Ohio River and two along Raccoon Creek, however, without being explicit about the associated diagnostics. Eisert (1981:29-30) reports single examples of the Lehigh Broad and Perkiomen forms from the upland Wylie No. 1 site (36Wh274), located along the divide between Chartiers and Little Chartiers creeks. A steatite bowl fragment is recorded from site 36A15 (Mayer-Oakes 1955:145, Plate 84), situated on the mainstem of the Ohio River and one of the sites displayed by George (1991).

EARLY WOODLAND PERIOD (1000 B.C.-A.D. 1)

The Woodland period is distinguished from the preceding Archaic interlude solely on the basis of the appearance of ceramics, ca. 1000 B.C., at least in the Upper Ohio River Valley, Middle Atlantic, and Northeast. With the accumulation of data from controlled excavations at deeply stratified river terrace sites and in closed stations, the timing of the introduction of fired clay ceramic technology is constantly

being pushed back further into the thirteenth and even the fourteenth centuries B.C. Fired clay ceramic technology appears to have diffused up the Piedmont and Coastal Plain from the Savannah River Valley.

The initial series ceramics in the Middle Atlantic Chesapeake Bay area are characterized by steatite temper (Marcey Creek Plain ware), by clay temper (Croaker Landing ware), and by a variety of fine clastic materials including schist, grog, steatite, fiber, and minute particles of bone and shell (Bushnell ware). Early vessels are hand-molded with flat bottoms and smooth exterior and interior wall surfaces. Vessel forms often reflect the sub-rectangular shape and flat bottoms of the antecedent carved steatite pots. The fired clay vessels frequently have opposed lugs as do the earlier stone bowls (Egloff and Potter 1982:95, 97).

Fired clay pottery technology seems to have gradually diffused from the Chesapeake-Delaware Bay area northward over the Appalachian Mountains, where the technology itself was apparently reworked. The result was a new ware, Vinette 1, which was grit-tempered and coil-constructed. The coils were welded together by malleating the vessel walls with a cord- or fabric-roughened paddle. There were also innovations in the shape of the vessels with concoidal bases, out-sloping walls, and more-or-less round orifices replacing the flat-bottomed "bathtub-shaped" initial series form.

Whatever its origin, this northern tradition soon spread south out of the Lower Great Lakes hearth area and rapidly supplanted the initial ceramic tradition. These technological innovations spread into the lower Upper Ohio River Valley either down the Allegheny River from upstate New York or, more likely, over the Appalachian Mountains from the Susquehanna or Potomac river basins. The new technology included the construction of vessels with symmetrical orifices, concoidal bases, and walls built from successive coils which were then welded together by malleating the exterior wall against a cord or textile-wrapped anvil with a similarly roughened paddle. The basic vessel shape during most of the Early Woodland interlude in the Ohio River Valley, however, remained a flat-bottomed flower pot or barrel shape. Vessels there also continued to display a set of opposed lugs. Although Mayer-Oakes (1955:184, 189-190) included a single example of a Vinette 1 type concoidal base in his Half-Moon Cordmarked type, this form is exceedingly rare in the Upper Ohio River Valley.

Half-Moon Cordmarked ware is the overwhelmingly predominant ceramic form in the lower Upper Ohio River Valley during the Early Woodland period. It is coil-constructed and is characterized by an eclectic variety of temper types, including pulverized igneous rock, sandstone, shale, chert, ironstone, fire clay, limestone, and various combinations of these clastic materials. Temper selection seems to have been opportunistic and was probably governed by available surficial rock sources. Vessel exterior and, frequently, interior surfaces exhibit prominent, coarse cord or twined textile impressions.

The earliest dated ceramics in the Upper Ohio River Valley were recovered from a terminal Archaic context at Meadowcroft Rockshelter (36Wh297) in the Cross Creek drainage. Here, a large underfired sherd tempered with pulverized ironstone was recovered from the bottom lens in a large fire pit, significantly in association with a single squash (*Cucurbita pepo*) seed and wood charcoal radiometrically assayed at 1115 B.C. \pm 80. A rim sherd from a second, technically more sophisticated Half-Moon Cordmarked vessel, was recovered from a stratigraphically higher lens in the same fire feature at Meadowcroft Rockshelter, and it is dated by a second assay of 865 B.C. \pm 85 (Johnson 1982:154).

Initial Early Woodland pp/k forms common elsewhere in the Northeast and Lower Great Lakes area, including the fishtail tradition Dry Brook and Orient varieties and the Meadowood form are rare to unreported beyond the terminal Wisconsin moraine in southwestern Pennsylvania. The still undescribed and largely undated "Forest Notched" form seems to be ascribable to the early half of the Early Woodland interlude. The Forest Notched type is the diagnostic pp/k form of an initial Woodland manifestation centered on the Middle and Upper Allegheny River Valley (Mayer-Oakes 1955:58-63). It

seems to represent yet another localized and degenerate variety of the Susquehanna Broad pp/k theme and may be equivalent to the derivative fishtail tradition Dry Brook and Orient pp/k types. Forest Notched pp/ks are associated with carved clay and stone tubular pipes and, apparently, the earliest ceramics in the Middle Allegheny River Valley. Forest Notched pp/ks in association with Half-Moon Cordmarked ceramics persist in the Monongahela and mainstem Ohio River valleys into the fifth century B.C.

Diagnostic pp/k forms of the late Early Woodland Adena culture include the Cresap, the Adena Ovale Base, the straight base Adena Stemmed, and Robbins types. The straight stemmed, square-base Adena form seems to persist along with the Adena Ovale Base type until very late to terminal Adena times, when both are replaced by the Robbins form. The Cresap variety seems to have declined in popularity at an earlier time. The various Adena stemmed pp/ks are associated with coil-constructed, flat-bottomed, flower pot/barrel-shaped Adena Plain ceramics in the Middle and lower Upper Ohio River Valley. Adena Plain ceramics normally exhibit a thickened rim strip and, not infrequently, opposed lugs. In the lower Ohio River Valley, they are also associated with Half-Moon Cordmarked and McKees Rocks Plain ceramics. The latter type is a predominantly chert-tempered local variant of the Adena Plain type.

A number of burial mounds are associated with the Adena-related occupation of the lower Upper Ohio Valley. Although most Early Woodland mounds are of modest proportions, several, including the Natrium (46Mr2), Cresap (46Mr7), McKees Rocks (36Al4), and Grave Creek (46Mr1) mounds are quite large (Carpenter 1951; Dragoo 1963; Hemmings 1977; Mayer-Oakes 1955; Solecki 1952). The Grave Creek Mound in Moundville, West Virginia, is the largest Adena mortuary site recorded in the Ohio River Valley, while the McKees Rocks Mound (36Al6) represents the largest earth mound upstream from the Grave Creek Mound. The lowest two of three construction levels at the McKees Rocks Mound are attributable to late Adena mortuary activity based on evidence from the rather limited burial modes and grave furniture at the site (Carpenter 1951:346; McMichael 1956:143-144).

With the exception of two squash (*Cucurbita pepo*) seeds, each associated with the dated Half-Moon ceramics from Meadowcroft Rockshelter (36Wh297), there is no evidence for the presence of other members of the Eastern Agricultural Complex in the Upper Ohio River Valley during the Early Woodland period. Although goosefoot (*Chenopodium* sp.) is identified from the Crawford-Grist site (36Fa262), the seeds are apparently not carbonized and, therefore, must be considered to be modern contaminants (Grantz 1986:16; 17, Table 3). In the upper Middle Ohio River Valley above the confluence of the Scioto River, domesticated members of both the oily and starchy seed components of the weedy seed Eastern Agricultural Complex have been reported from both Adena domestic and mortuary contexts during the last four centuries of the first millennium B.C. Taxa include sunflower (*Helianthus annuus*, var. *macrocarpus*), sumpweed (*Iva annua*, var. *macrocarpa*), goosefoot (*Chenopodium berlandieri*, ssp. *jonesianum*), maygrass (*Phalaris caroliniana*), and little barley (*Hordium pusillum*) (Abrams 1989:23, Table 4; 24; Niquette et al. 1987:35-37; 41, Table 5; 45, Table 6; Niquette et al. 1988:59; Wymer 1989:140, Table 7-8; 142, Table 7-9; 1989b:113, Table 6).

There seems to be a heavy emphasis on the collection and the processing of nuts, reflecting patterns elsewhere in the Northeast if not those in the Middle Ohio River Valley. Interestingly, acorn meats and shell were the major nut remains recovered from the Crawford-Grist site (Grantz 1986:17, Table 3). This is particularly significant because acorn shell is normally under-represented *vis-à-vis* *Carya* spp. and *Juglans* spp. in archaeological contexts because of their thin shells and the method by which they were processed.

MIDDLE WOODLAND PERIOD (A.D. 1-400)

The Middle Woodland period in the Middle and lower Upper Ohio River Valley is defined by the appearance, florescence, and collapse of the Scioto tradition Hopewell culture of the Middle Ohio River

Valley. The transition of local lower Upper Ohio River Valley Adena-influenced groups to ones displaying evidence of Hopewell interaction is not easily perceived. This is perhaps a function of the fact that the Scioto tradition late Adena culture simply evolved directly into early Hopewell (see Greber 1991). Although Greber was confining her observations to Ohio, they are equally applicable to the Upper Ohio River Valley. In the Middle Ohio River Valley in drainage basins which do not cross-cut the terminal Wisconsinan moraine such as the Big Sandy, Kanawha, and Hocking, Late Adena Robbins phase-like complexes appear to persist into the first two centuries of the first millennium A.D. In the lower Upper Ohio River Valley on the periphery of this phenomenon, this progression is even less visible in the archaeological record. There is a paucity of locally excavated sites, with adequate radiocarbon dated associations from this interlude. Additionally, local Upper Ohio River Valley groups interacted differently with the down river Hopewell groups than they had with the earlier Adena. Physical evidence in the form of mortuary mounds and exotic artifacts and raw materials suggests a less intensive interaction with the Hopewell core than with the preceding Adena. Conversely, local Middle Woodland groups on the Glaciated Allegheny Plateau and in the Middle and Upper Allegheny River Valley seem to have been drawn more directly into the Hopewell Interaction Sphere, suggesting a reorientation of trade networks emanating from the Middle Ohio River Valley.

In the lower Upper Ohio River Valley, many Middle Woodland mortuary contexts contain grave furniture which represent a curious mixture of late Adena and Hopewell-related items, e.g., the Anderson Mound (36AI96) in Oakmont on the Allegheny River (George 1978). In fact, one burial from the Anderson Mound was interred with a cache of Fox Creek pp/ks, derived from beyond the Appalachian Mountains, thus helping to place the mortuary activity in its proper Middle Woodland context.

The collapse of the Hopewell Interaction Sphere is even harder to precisely fix archaeologically in western Pennsylvania. Several late Middle Woodland pp/k styles and other diagnostic lithics persist into the early Late Woodland period, e.g., Chesser Notched pp/ks and lamellar blades struck from polyhedral cores. Mortuary ceremonialism and burial mound construction also continue well into the Late Woodland period. In spite of these problems, the close of the Middle Woodland period is arbitrarily set at A.D. 400 to conform with Middle Ohio River Valley practice. During the Woodland and Late Prehistoric periods the lower Upper Ohio River Valley, if peripheral, still reflects cultural patterns and trends evolving further downstream.

In the Upper Ohio River Valley, the Middle Woodland interlude is characterized by a number of corner-notched and expanding stemmed pp/k forms, derived directly from Ohio Scioto and Illinois Havana tradition Hopewell sources or inspired by these prototypes, as well as by lamellar bladelets struck from prepared polyhedral cores of multi-colored Vanport (Flint Ridge) chert from central Ohio. These pp/k forms include Snyders, Manker Corner-Notched, Gibson, Norton, so-called "Hopewell", Manker Stemmed, and Lowe Flared Base/Steuben Expanding Stem forms. Locally, particularly in the Allegheny and Lower Youghiogheny river valleys and in the interior of Washington and Greene counties, the later part of the Middle Woodland and the succeeding early Late Woodland period are represented by a series of relatively small corner-notched pp/k forms, including the Kiski-Notched, Garvers Ferry Corner-Notched, Murphys Stemmed (George 1982) types in the former area and the Bennington Corner-Notched form (Boldurian 1985; Fitzgibbons 1982:109, Table 4) in the latter. The precise chronological affiliation of all these forms is somewhat problematical.

Diagnostic ceramics include undecorated pedestrian, limestone-tempered Watson Cordmarked and igneous grit-tempered Mahoning Cordmarked wares. Watson ware is characteristic of the lower Upper Ohio River Valley area, particularly that area lying south of the terminal Wisconsinan moraine. Although Mahoning Cordmarked ware is present to the essential exclusion of Watson ware within the Glaciated Allegheny Plateau, it also occurs with some frequency on sites beyond the terminal Wisconsinan moraine,

particularly on sites along the mainstem of the Upper Ohio and the Middle and Upper Allegheny river valleys.

A few low earth and stone slab burial mounds in the lower Upper Ohio River Valley can be associated with the Middle Woodland interlude. Compared to the earlier late Early Woodland and contemporary Hopewell tumuli in the Middle Ohio Valley, burial modes are bland and undistinguished, at least outside the terminal Wisconsin moraine. On the Glaciated Allegheny Plateau and in the Upper Allegheny River Valley, Middle Woodland mounds appear to be quantifiably different from those recorded in the lower Upper Ohio River Valley. The mounds in northwestern Pennsylvania and adjacent northeastern Ohio and southwestern New York are generally larger in size and ordinarily employ earth-fill construction with stone slab retaining walls and stone slab-lined cists and covered burial pits. Some are surrounded by gravel rings. All of these traits are more reminiscent of the classic Scioto Hopewell mounds of central Ohio. Cremations and in-flesh burials frequently associated with red ochre have been recovered. More particularly, "high church" Hopewell (HIS) artifacts and exotic raw material such as platform monitor pipes, cut mica, freshwater pearls, copper beads and crescents, and native silver-encased reed panpipes are present while cache blades and lamellar flake knives of Vanport (Flint Ridge) chert, gorgets, and pendants are common and often present in some numbers (Cadzow 1935; Carpenter 1956; Clark et al. 1960; Guthe 1950, 1951; Parker 1922; Zakucia 1956, 1961, 1974).

Projectile point/knives diagnostic of the Middle Woodland are generally rare (though present) in the region. Data relating to local Middle Woodland subsistence strategies are virtually unknown for the Upper Ohio River Valley. There is no uncontroversial evidence for the presence of members of the Eastern Agricultural Complex, except for the aforementioned Meadowcroft Rockshelter squash seeds and the controversial maize. The *in situ* presence of the latter taxon in even the Middle and Late Woodland levels at Meadowcroft Rockshelter has been questioned (Ford 1987).

Watson and Mahoning ware are the two dominant ceramic series of the Middle and Late Woodland interludes in the Upper Ohio River Valley. They are almost exclusively pedestrian, cord-marked, and undecorated for essentially all but the last few centuries of the first millennium A.D. After ca. A.D. 700, Mahoning ware, at least on the Glaciated Allegheny Plateau, frequently exhibits decoration in the form of horizontal bands of parallel or opposed oblique cord-wrapped paddle edge-stamped impressions on vessel sublips and occasionally rectilinear trailed lines on necks. Vessel rims occasionally display castellations. Later, Mahoning ware vessels more frequently evidence added-on or folded-over collars. These are often decorated with horizontal bands of parallel, opposed, or criss-crossed oblique cord-wrapped paddle edge or linear stamped impressions. Only rarely do Watson ware vessels display a low added-on collar or rim strip and then only on sites along the mainstem Ohio River nearest the terminal Wisconsin moraine. Otherwise, assignment of Watson or Mahoning ware sherds, particularly undecorated body sherds, to either a Middle or Late Woodland provenience is essentially impossible out of excavation context or in the absence of associated diagnostic pp/ks or radiometric assays.

LATE WOODLAND PERIOD (A.D. 400-1050)

The Late Woodland period in the lower Upper Ohio River Valley runs from A.D. 400, an arbitrarily selected date for the end of Middle Woodland Hopewellian influence, until the appearance of the Late Prehistoric period Monongahela culture village-dwelling horticulturists. The upper end of this interlude is more securely fixed at ca. A.D. 1050. The Late Woodland period in the Upper Ohio River Valley seems to include at least four and possibly five cultural traditions (see Johnson et al. 1979). At least one of these putative traditions may be attributable to a cultural horizon that cross-cuts several different traditions. The other four represent more certainly cultural traditions with their origins at least as far back as the post-A.D. 400 Late Woodland period. At least three of these traditions persisted until the Protohistoric period. One of these traditions, however, may represent only a widespread stylistic horizon.

In the lower Upper Ohio River Valley, particularly along the mainstem Ohio, Lower and Middle Monongahela, and Lower Allegheny river valleys, the entire Late Woodland interlude seems to be characterized first by the presence of the Chesser Notched pp/k form. This type has been considered to be related in a descendant and apparent degenerate fashion to the terminal Middle Woodland-early Late Woodland Middle Ohio Valley Lowe Flared Base/Steuben Expanding Stem pp/k continuum. Chesser Notched pp/ks are dated generally between ca. A.D. 300 and A.D. 1000 by a large number of acceptable radiocarbon assays from sites in the Middle Ohio River Valley.

Apparently associated with the Chesser Notched form in the lower Upper Ohio River Valley is the recently recognized and defined smaller and thinner Backstrum Side-Notched type (George 1992:68). The Backstrum Side-Notched form distribution is centered on the Lower Youghiogheny River Valley. This form has not been directly dated, but George (1992) suggests that the A.D. 690 ± 50 radiometric assay obtained by NPW Associates from a feature at the type station, Backstrum site (36Wm453) (Ballweber 1989:73, Table 6) could date the occupation associated with the Backstrum pp/ks.

The Bennington Corner-Notched type in interior Washington and Greene counties and the diminutive Kiski Notched and Garvers Ferry Corner-Notched forms, centered on the Lower Allegheny, Kiskiminetas, and Lower Youghiogheny river drainages, may also persist into or be completely confined to the Late Woodland interlude.

Undecorated and undistinguished limestone-tempered Watson Cordmarked ware is the predominant ceramic type associated with the Late Woodland occupation in the lower Upper Ohio River Valley. Rarely, along the mainstem valley of the Upper Ohio River, terminal Late Woodland Watson vessels will exhibit added-on/folded-over collars, mimicking a style exhibited by late Mahoning ware vessels from the nearby Glaciated Allegheny Plateau. Sandstone-tempered cord-marked ware is also characteristically recovered from some terminal Late Woodland components along the Lower Allegheny River (George 1964).

Burial ceremonialism in the form of mounds with largely stone slab-lined and covered cists and stone slab matrices continues through the Late Woodland period at least in the lower Upper Ohio River Valley. Burial furniture is usually minimal and reflects a pattern evident in the Middle Woodland period in the same area.

The diagnostic pp/k form of the initial Late Woodland period within the Glaciated Allegheny Plateau immediately to the north of the study area is unknown, unless the occasionally reported Chesser Notched forms are attributable to this interlude (see, e.g., Johnson et al. 1979:Figure 7). The dominant Late Woodland pp/k forms on the Glaciated Allegheny Plateau and in the Upper Allegheny River Valley, however are the closely related Jack's Reef Corner-Notched, Jack's Reef Pentagonal, Raccoon Notched, and Levanna forms, which have been included within Lantz's (1989) Raccoon Notched point assemblage and Seeman's (1992) Jack's Reef horizon/Intrusive Mound complex. The Jack's Reef varieties and the Raccoon Notched form are gradually supplanted by the Levanna triangle form during the ninth century A.D. (Funk 1976:283, Figure 25). This complex of related pp/k and distinctively decorated ceramics is generally dated to the sixth through ninth centuries A.D. on the Glaciated Allegheny Plateau and in the Upper Allegheny River Valley. Although many have speculated that these four related and often co-occurring forms mark the initial appearance of the bow and arrow complex in the Middle and Upper Ohio River Valley, Lower Great Lakes and Northeast, Seeman (1992:41-42) seems to have demonstrated this fact.

Locally, the Raccoon Notched point assemblage/Jack's Reef horizon pp/ks are associated with igneous grit-tempered and cord-marked or fabric-marked ceramics which are decorated with horizontal bands of cord-wrapped paddle edge-stamped impressions in parallel oblique, opposed oblique and criss-cross

patterns. This decoration is confined to the sublip of vessels. Added-on collars are only occasionally present in the ceramic assemblages from sites in northwestern Pennsylvania from this early-middle Late Woodland time horizon. The distinctive ceramics and the associated pp/ks have been assigned to an Allegheny River phase (A.D. 500-950) by Lantz (1989:47-50) and, alternatively and tentatively, to an Edinburg phase by Johnson et al. (1989:25, Figure 6), perhaps emphasizing perceived relationships of the ceramic design and application technique attributes to complexes to the northeast and southwest, respectively.

Seeman (1992:43) sees the Intrusive Mound complex/Jack's Reef horizon as a rapidly spreading cultural horizon associated with the introduction of the bow and arrow, if not explicitly with an intrusive population movement. Custer et al. (1990:62) entertain the possibility that the appearance of the intrusive Webb complex is associated with the spread of the Eastern Algonkian-speakers.

The center of the concentration of the Raccoon Notched form is west-central Pennsylvania, along the Ohio border, although this fact is obscured by Lantz's (1989) presentation of the distribution data for the Jack's Reef and Raccoon Notched varieties. Jack's Reef, Raccoon Notched, and Levanna pp/k forms exhibit a thin but widespread distribution throughout the rest of the lower Upper Ohio River basin. Their distribution, particularly south of the terminal Wisconsin moraine, tends to be in upland locales away from the flood plain of the mainstem fifth-order streams, indicating a settlement/seasonal round pattern apart from that exhibited by the distribution of the Backstrum, Chesser, Bennington, Kiski, and Garvers Ferry forms. This fact, in turn, has suggested the presence of two different traditions and the intriguing possibility of two different populations in southwestern Pennsylvania during the Late Woodland interlude (George 1992; Johnson 1986:20-22).

LATE PREHISTORIC PERIOD (A.D. 1050-1580) AND PROTOHISTORIC PERIOD (A.D. 1580-1635)

During the Late Prehistoric and Protohistoric periods, the Upper Ohio River Valley experienced a dramatic population explosion that is manifested in the form of numerous large and visible village sites, which not infrequently served as the locus for several successive reoccupations. Accompanying this population expansion was a change in emphasis in settlement location along with an apparently radical shift in subsistence strategy away from the prevailing Woodland pattern to one that emphasized the occupation of interior upland locales (Johnson et al. 1989). In these two time periods, the lower reaches of the Upper Ohio River drainage were occupied by people of the Monongahela culture. The Monongahela people lived in planned, nucleated, normally stockaded villages. The preferred loci for Monongahela villages include upland benches, saddles, and knobs, in descending order of frequency, located either on or directly adjacent to the drainage divides of tributary streams of the Monongahela, Youghiogheny, Allegheny, Kiskiminetas and Ohio rivers. Their subsistence base emphasized maize horticulture, hunting, and fishing with the harvesting of nuts as a minor focus. The rapid population expansion at the beginning of the Late Prehistoric period was undoubtedly the result of a reorientation of their subsistence economy toward a dependence on maize, which was of particular value as a storable resource. The frequency of charred nut shells on Monongahela sites (usually far outnumbering charred maize kernel and cob remains), however, suggests that the older Woodland economic base was not totally abandoned.

In the material culture of the Monongahela, the most obvious change from earlier Woodland manifestations appears with the introduction of a new ceramic manufacturing technology accompanied by new vessel forms and decorative modes. The various changes in ceramic tradition, subsistence economy, and pp/k forms appear to have diffused piecemeal from the Middle Ohio River and were subsequently grafted onto an *in situ* Woodland base. Final twist direction studies of cordage impressions preserved on the exterior surfaces of Middle-Late Woodland and Monongahela culture ceramic sherds (Johnson and Speedy 1993) indicate that probably no appreciable population replacement occurred in the Upper Ohio

River Valley between the Late Woodland and Late Prehistoric periods. The mainstem of the Allegheny and Ohio rivers appears to form the effective northern boundary of Monongahela culture territory.

Distinctions between Early Monongahela period (A.D. 1050-1250) and Middle Monongahela period (A.D. 1250-1580) sites are based solely on the presence or absence of certain temper aplastic, ceramic surface finish and decorative attributes. Any correlation between these changes and the brief deterioration of the climate in the Northeast at the end of the Neo-Atlantic climatic episode, ca. A.D. 1200-1250, and the apparently concomitant contraction of Monongahela territory by the end of the thirteenth century (Johnson 1981:79-82) is not immediately apparent.

Considering the documented presence of two and possibly three distinct cultural (and possibly ethnic) groups in the general study area during the Late Prehistoric period, it is of interest that much of the evidence for traumatic human death in Monongahela mortuary populations comes from sites excavated along the mainstem of the Ohio River (Alam 1957:5; 1961:69; 1976:35; Mayer-Oakes et al. 1952). This evidence includes the recovery of "trophy skulls" and fragmentary human bone from fire pits at the Ohioview site (36Bv9) (Alam 1976:35). Of more specific importance are the three mutilated burials (Burials 6, 7, and 8) recovered from the same feature at the Ohioview site. Two Fort Ancient so-called "Philo" arrow points of exotic Middle Ohio River Valley cherts were recovered within the thoracic cavity of Burial 8 (Alam 1961:69; 1991, pers. comm.). Two and possibly four of five triangular points recovered from the thoracic cavity of Burial 3 excavated at the Lower Shippingport site (36Bv4) are also of the diagnostic Philo type, again made from exotic lithic material (Mayer-Oakes et al. 1952:69, 72; Emil Alam 1990, pers. comm.). Published photographs of other triangular points from these sites suggested that the distinctive Early Fort Ancient (Roseberry and Philo phase) Philo arrow points are not otherwise diagnostic of the sites along the mainstem Ohio River in this area. This suggests the possibility of raiding by downstream Roseberry, early Blennerhassett or Philo phase Fort Ancient people rather than intra-group Monongahela competition for available resources. By Middle Monongahela period times, real competition for resources may have occurred between local Craters and Raccoon creek and mainstem Ohio River Monongahela populations on the one hand and the Riker-Whittlesey populations associated with a series of intrusive components along the Ohio River at the McKees Rocks Village (36A116), Lower Georgetown (36Bv29), and Wellsburg (46Br2) sites.

The ethnic and linguistic identities of any of these Late Prehistoric groups in the general study area are uncertain. Descendent villages representative of two of these three groups persisted into the Protohistoric period in this region of the Upper Ohio River Valley, although, in general, none survived into the Historic period. The only clear references to the aboriginal inhabitants of the Upper Ohio River Valley by Europeans who actually saw them are from early to mid-seventeenth century English, Swedish and Dutch sources and secondary French ones. They identify the indigenous trans-Appalachian Indians as the *Massawomeck* (English); the Black Minqua, allies of the Susquehannock or White Minqua (Swedish and Dutch); and the *Attiouanderon* (Johnson 2001). In A.D. 1632, the *Massawomeck* told the English at *Anacostank* at the falls of the Potomac River that their four constituent tribes were the *Tonhoga*, *Usserahak*, *Shaunnetowa*, and *Mosticum*. Only the fourth name is not clearly Iroquoian. This is significant because these were the terms the *Massawomeck* used to refer to themselves (Pendergast 1991:44-45). It is certain that the Eastern Algonquian term "Minqua" also meant Iroquoian-speaker to the Swedes and Dutch (Hoffman 1964:202). Finally, *Attiouanderon* is a reciprocal term used by the Iroquoian Neutral and Huron for each other. It means approximately "people who speak nearly the same language as we do" (Trigger 1969). The source for the secondary French reference to the aboriginal inhabitants of the Upper Ohio River Valley in the late 1630s was the Huron. The early Protohistoric inhabitants of the Upper Ohio River Valley were clearly Iroquoian speakers. In the absence of any other archaeological candidates they can only be the Monongahela people.

Historic Land-Use

EARLY DEVELOPMENT OF PITTSBURGH

Pittsburgh's development over time relates to the area's wealth of natural resources and its geographical layout. The importance of the Ohio, Monongahela, and Allegheny Rivers for the transport of people and goods also led to much of the city's growth. Grids of development were laid out parallel to these rivers, converging at the Point where the Ohio River begins. Original land grants were titled to the state by the Penn Family, and distributed after the War for Independence (Figure 6). On May 31, 1784, John Woods laid out the first city grid with the aid of the Penn family (Historical Society of Pennsylvania [HSP] 1889:11). As can be seen in the resulting map, present day street names and lot numbers have remained unchanged (Figure 6) (HSP 1889:11; Woods 1784).

Woods' work was contracted by Fench Francis, Esq., attorney for John Penn Jr., and John Penn, heirs of William Penn. His insertion of a public square, known as Market Square, was likely influenced by William Penn's layout of Philadelphia, stemming from his professional relationship with the Penn family. The periphery of the downtown grid consisted of rural tracts of land. The land contained in the project APE was, at that time, known as Farm No. 3, and owned by A. Reed (Figure 7). Reed's lots were then subdivided into parcels owned by General Adamson Tannehill. Overall, this was the pedestrian city, laid out to the scale of people on foot and horseback. Saw mills, gristmills and glass works were early industries in the region, while boat building and outfitting became prosperous.

In 1794, Pittsburgh was designated a borough. It became known as the "gateway to the west." To this end, the city was a major destination for settlers expanding to the nation's western frontier via covered wagons as well as water transport down the Ohio River. The Darby map depicting 1795 Pittsburgh (Figure 8) illustrates a developed downtown grid, with Braddock's Field Road heading east beyond Grant Street (Darby 1815). Just north of this was the battle ground where Major Grant was defeated on September 15, 1758. This area became known as Grant's Hill.

The transition of the rural plots may be seen between the transition of the 1830 map (Figure 9) and the 1855 map (Figure 10). Blocks and streets in the APE were laid out, transforming the Hill District into a residential neighborhood in the late 1840s, when "Thomas Mellon bought a tract of farmland on the slopes nearest the city. He subdivided the tract into smaller, city-sized plots, selling them at a tidy profit. This began the Hill's development as a settled community versus a farmstead (Pittsburgh Neighborhood Alliance [PNA] 1977:2).

The commerce and transportation of goods in this early city were shipped mainly via the rivers and the newly established roads. The Pennsylvania Canal was just west of the APE, shown in Figure 9. Canal Lane and the Pittsburgh & Coal Hill Turnpike were early roads that ran through the APE in the 1830s. Later in the 1850s, the importance of rail contributed to the distribution of goods in and out of the city. This may be seen to the northwest corner of the map outside of the APE. The lines may be seen in Figures 10 and 11.

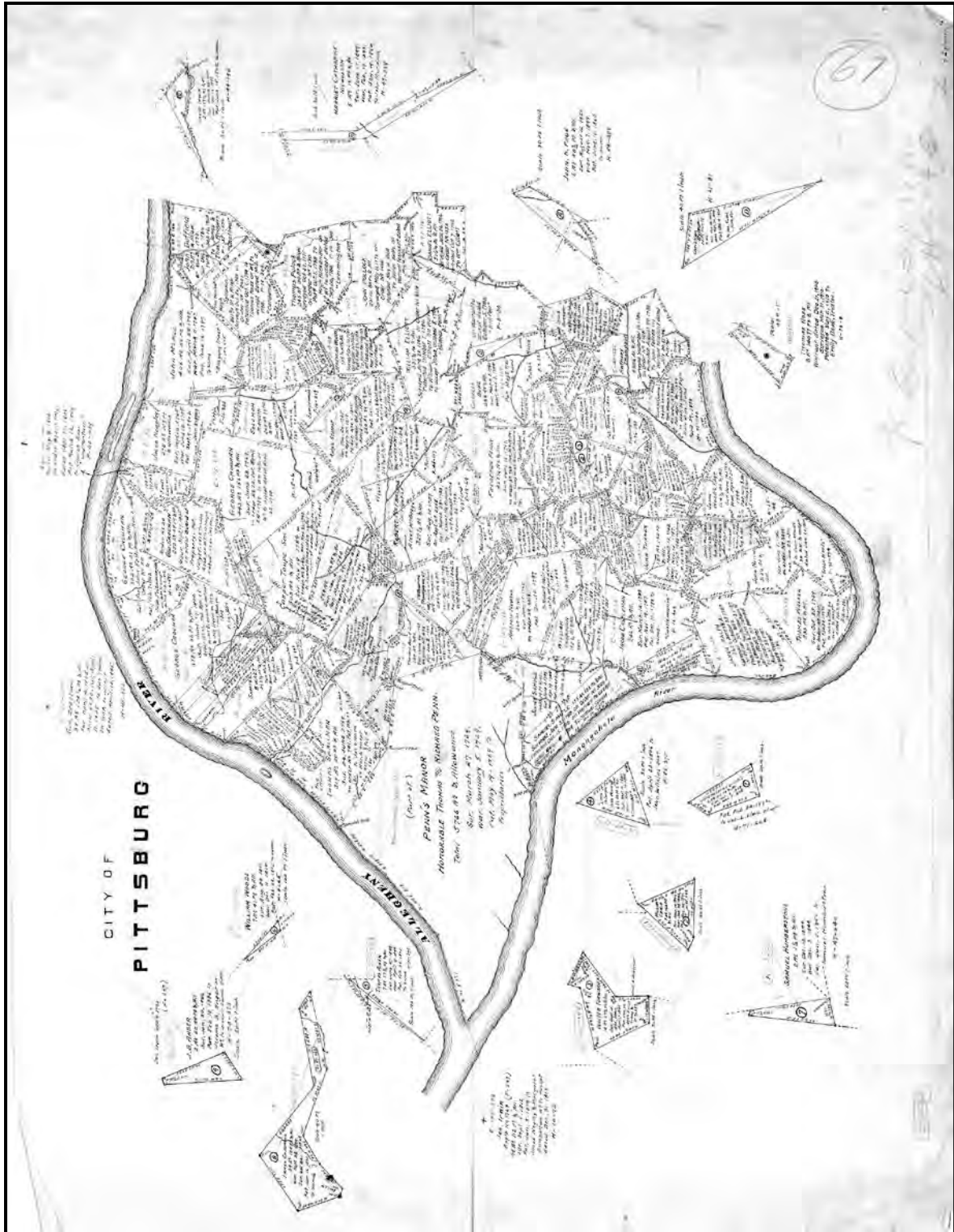


Figure 6: Warrantee Atlas of Pittsburgh
(Pennsylvania Department of Internal Affairs 1914:Plate 9).

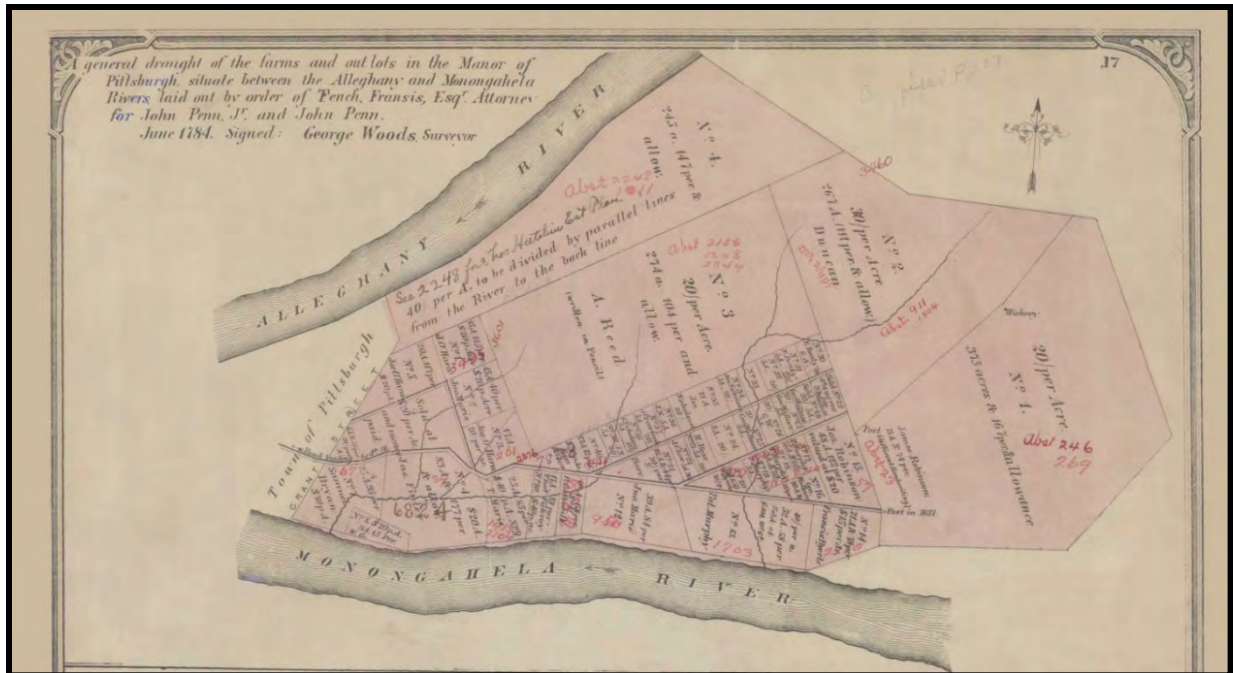


Figure 7: 1784 George Woods Survey of Pittsburgh (Woods 1784).



Figure 8: Archaeological APE shown on the 1795 Plan of Pittsburgh (Darby 1815).

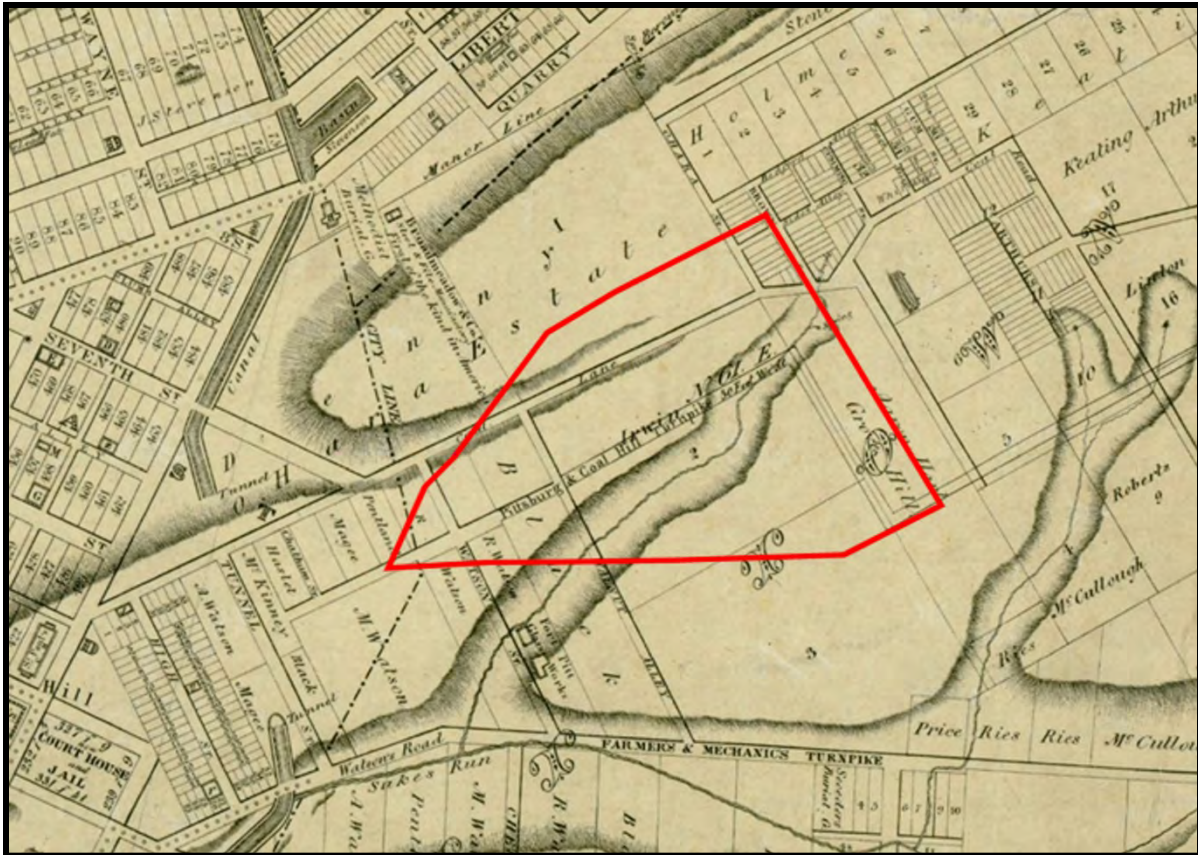


Figure 9: Archaeological APE shown on the 1830 map of Pittsburgh (Molineux 1830).

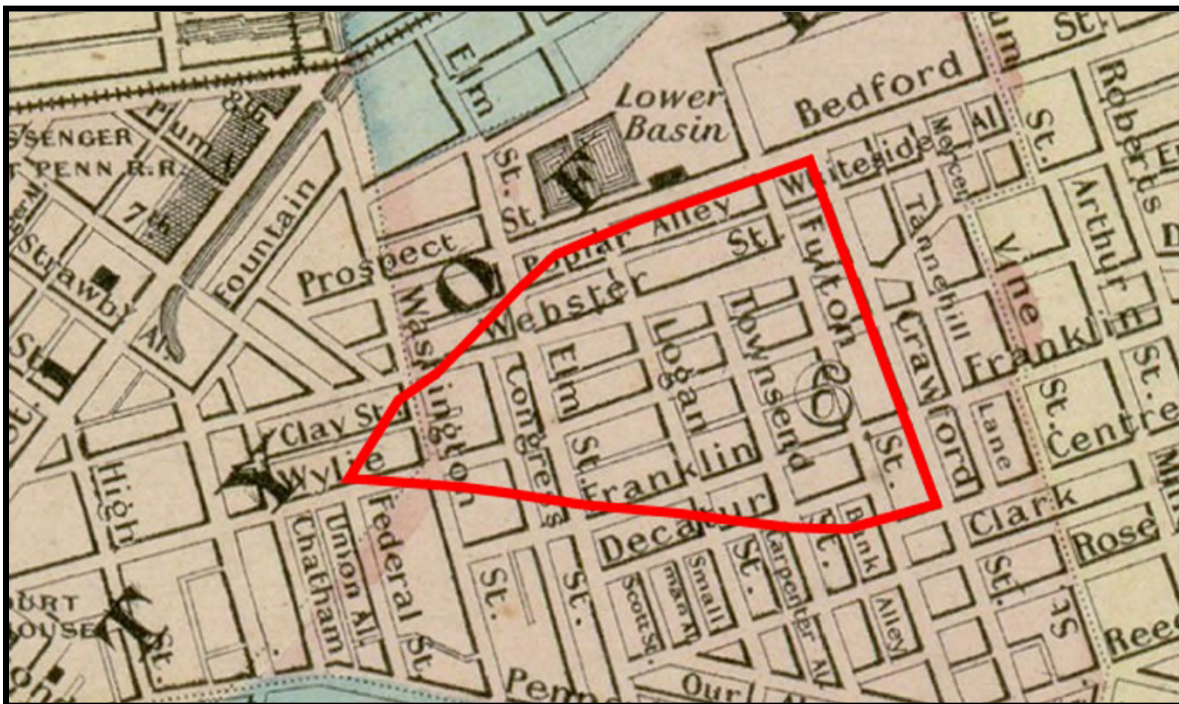


Figure 10: Archaeological APE shown on the 1855 map of Pittsburgh (Colton 1855).

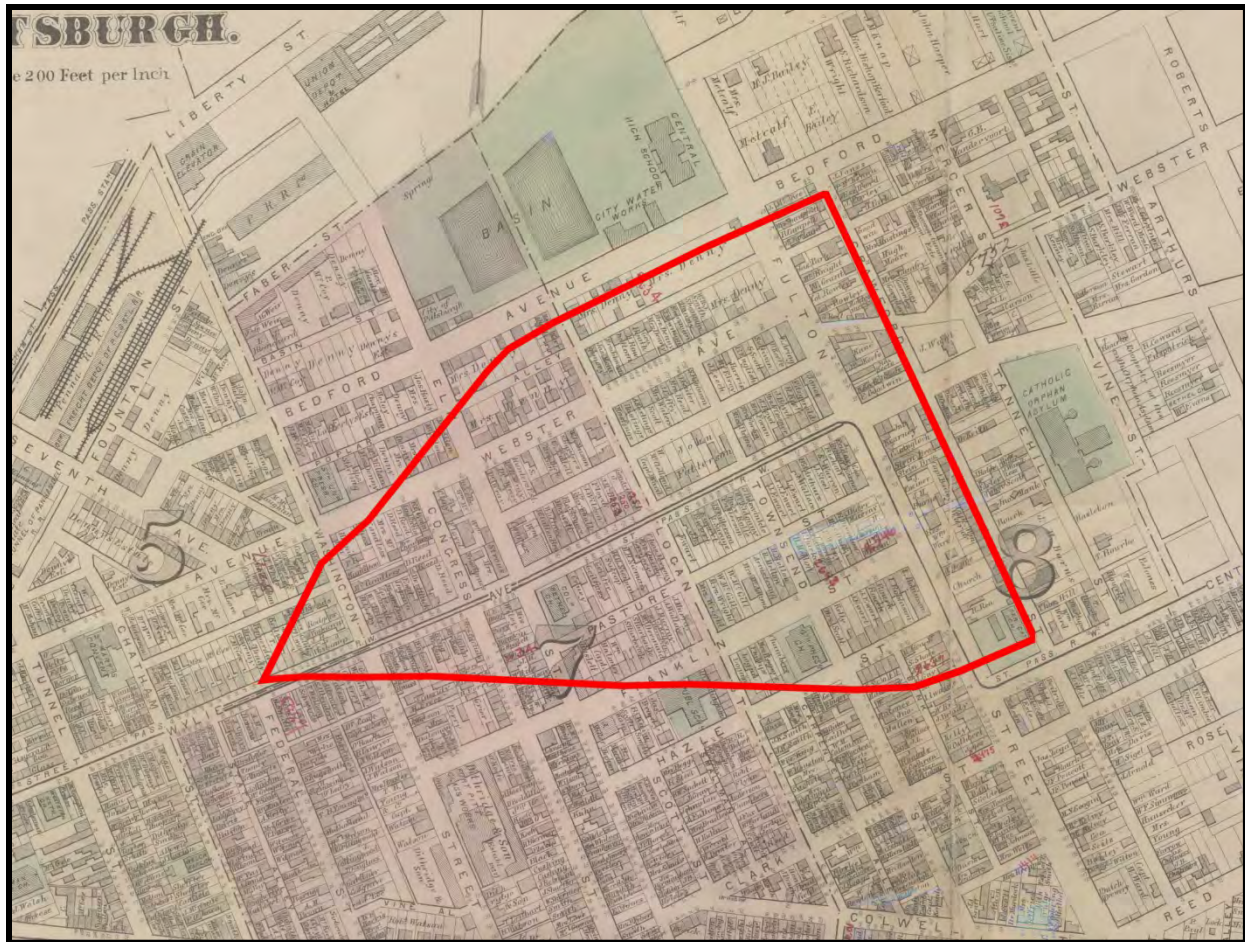


Figure 11: Archaeological APE shown on the 1872 Hopkins map of Pittsburgh (Hopkins 1872).

Between the 1850s and 1870s, the influx of commerce and industry workers led to the increased residential density of the APE (see Figure 11). The close proximity to downtown to the west, rail operations to the north, and glass and other industries to the south of the APE made the area desirable as a residential area. Low-rise frame houses and small associated supporting businesses were interspersed throughout the area to accommodate the workers.

By the turn of the twentieth century, industry was on the rise. Taller buildings began to be erected as building technology began to advance, and many factories spewing smoke are depicted in the drawings of the era. Such prosperity came with a price, however, with heavy pollution resulting from the industrial processes. The monikers "Steel City" and "Smoky City" resulted from its place in materials production. This Industrial-era city was defined by the congestion, rapid expansion, and a changing urban landscape, which included the automobile, streetcars and trains.

The Hill District's expansion was similar to that of other urban ethnic enclaves in budding industrial cities. The railroad lines to the northwest of the APE served as a boundary between downtown Pittsburgh and the expanding community. Dense development, composed mostly of two to three story frame and brick residences and supporting commerce were evident in the Hill of the 1880s. Lumber and furniture sales, cigar factories, stables and horse sales, picture framers, carpenter shops, drug stores, bakeries, print shops and restaurants were interspersed throughout the APE. Five blocks to the northwest of the APE was the Pittsburgh, Cincinnati & St. Louis Railway Company (PC&St.L) roundhouse, and also two beer

depots, horse stables and sales, as well as the Evans & Cunningham lumber yard. Located just outside the south edge of the APE were the A.J. Logan mattress factory and the notable Fort Pitt Glassworks, part of Dithridge & Company. Just south of this lot sat the Bani Israel synagogue. Within the APE, religious institutions developed at this time as well. A Baptist church, a Catholic college, and the already well-established Bethel African Methodist Episcopal Church, the Sixth Presbyterian Church, the Mt. Olivet M.E. Church, Holy Trinity R.C. Church, School, and the Carmelite Convent were all located within the APE. In addition to the daily living needs of the residents, their children were served by the Hancock Public School (Sanborn 1884).

“Jewish immigrants comprised the first group to replace the original settlers. Between 1870 and 1890, great numbers arrived from Europe’s ghettos. After the Jews came the Italians, the Syrians, the Greeks, and the Poles. Blacks began arriving [in greater numbers] from the South between 1880 and 1890” (PNA 1977:2). In the 1850s, part of the Lower Hill, was known as “Little Hayti.” This area of inexpensive housing and the proximity to downtown became an urban enclave for blacks seeking work and refuge from slavery in the South (Pittsburgh History and Landmark Foundation [PHLF] 1995:4).

The 1893 Sanborn map shows that majority of the buildings within the vicinity of the APE were residential. Commercial enterprises interspersed throughout the neighborhood included drug stores, bakeries, laundries and liverys. Churches included the First Cumberland Presbyterian Church, and the Welsh Baptist Church, in addition to the inclusion of a children’s home, the Imperial hotel, and Zalkind house, a Jewish social organization (Sanborn 1893).

The low income, working class residents of the Hill (and the APE) were not without aid, however. Influenced by the progressive social improvement efforts of his noted pastor, Reverend George Hodges, industrialist Henry Clay Frick donated funds to relocate the downtown Kingsley House settlement house to the Hill at Bedford Avenue and Fulton Street in 1897. This and other social improvement organizations aimed at improving the conditions of the poor. Many such efforts were interspersed throughout the Hill at the turn of the century (Bauman and Muller 2006:38-40).

Further development of the housing stock in the APE is viewed by comparing the Hopkins maps of 1903 (Figure 12) and 1923 (Figure 13). Aging frame buildings began to give way to low-rise brick structures with increasing density. Areas outside the APE, but which affected the residents within the APE continued to change. The northwest periphery sector of the 1905 Sanborn revealed that the previous areas filled by the railroad roundhouse, lumber and foundry businesses were now composed of dense housing and businesses (Sanborn 1905). This infill also occurred within the APE. These maps also suggest that small businesses increased to support the growing residential population. They included more cafes and restaurants, barber shops, a second hand furniture shop, coopers, a locksmith, tin wares, carpenters, printers and office and storage spaces as well as pool halls. Tenement apartments also began appearing on these maps. Religious and social institutions also increased at this time. The Epiphany R.C. parish and school replaced the site of the old glass works across Epiphany Street just outside of the APE. Within the APE, these religious institutions were plentiful, including a Syria Temple Masonic lodge, the Pittsburgh Bible Institute, the Catholic Lyceum, the Watson House, St. Anne’s R.C. Church, a synagogue, and the Franklin public school. The number of stables also decreased at this time, reflecting the changes in transportation.

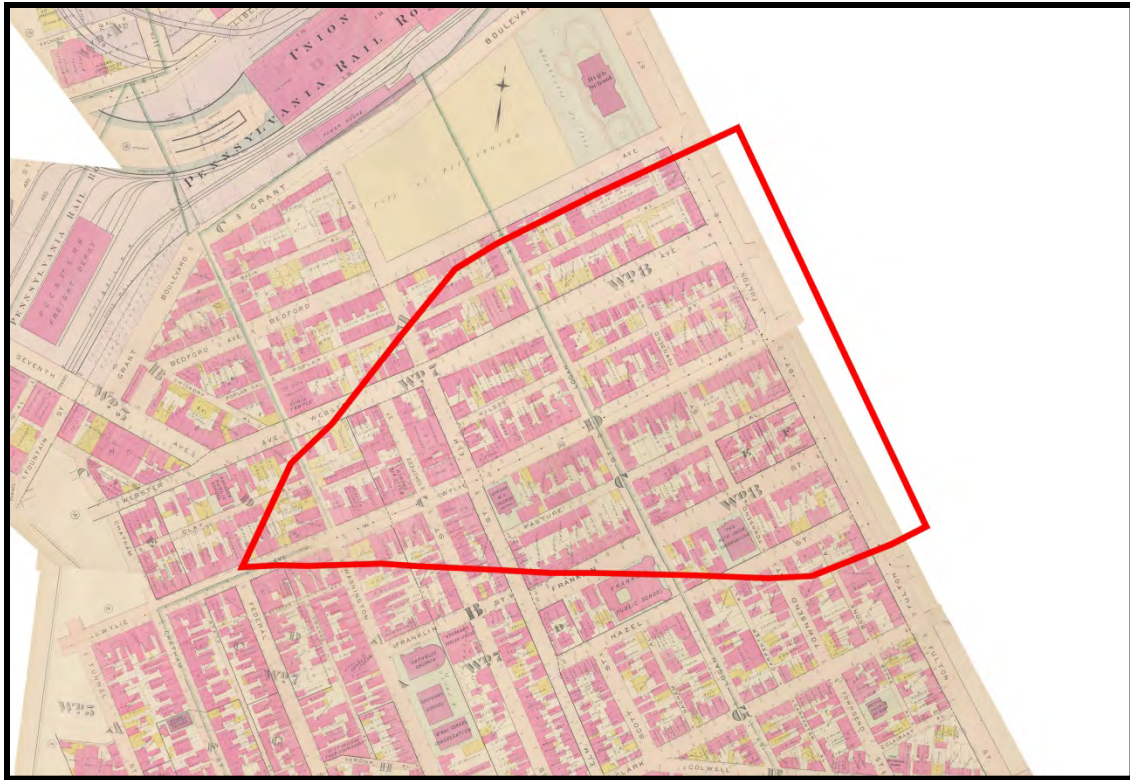


Figure 12: Archaeological APE shown on the 1903 Hopkins real estate map of Pittsburgh (Hopkins 1903).

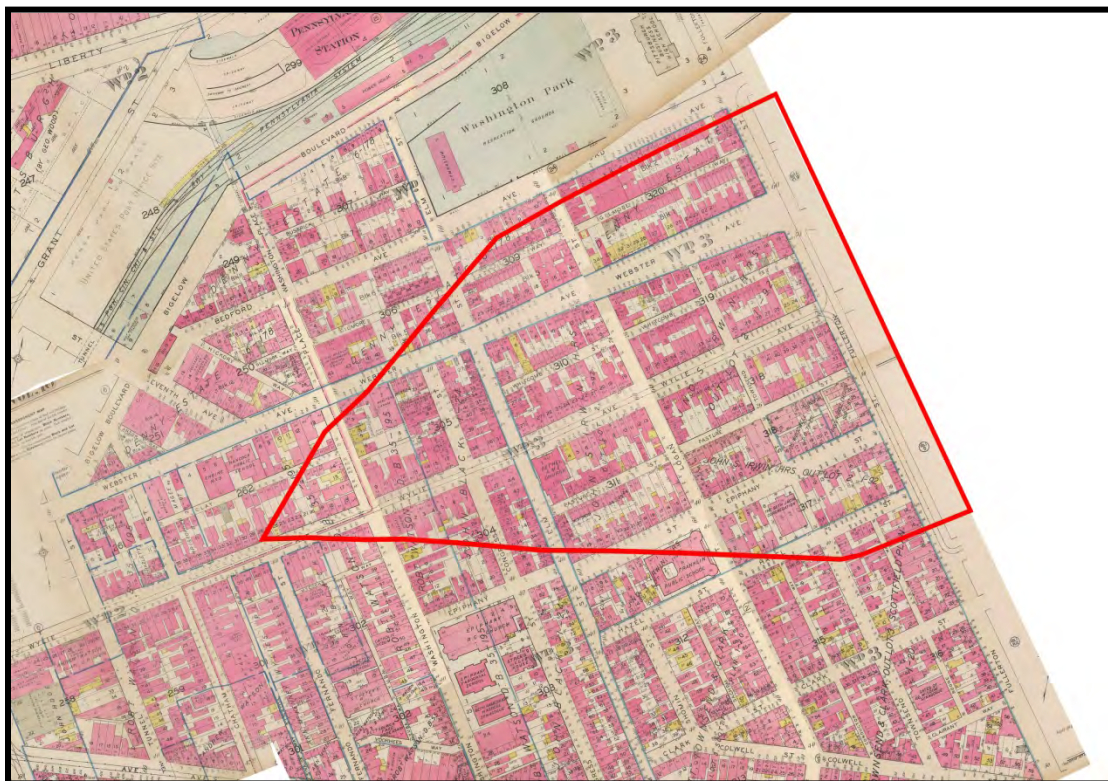


Figure 13: Archaeological APE shown on the 1923 Hopkins real estate map of Pittsburgh (Hopkins 1923).

“During the years leading to World War I and after...Blacks from the South...were urged to come by the industry recruiters who also promised relief from the segregation laws of their birthplace...Blacks continued to come to Pittsburgh and the Hill District through the 1960s” (Miles 1984:A4). However, following the class marginalization and economies of the Hill residents, between 1889 and 1943, “In the Hill District and other poor or working-class neighborhoods where decent housing was scarce and where most residents in the late nineteenth century were either European immigrants or African Americans, landlords [often] refused to connect their decrepit tenements to water lines, sewers, or electricity” (Bauman and Muller 2006:30).

The 1923 Hopkins map (Figure 13) and the 1927 Sanborn map revealed yet another increase in the density of the area. The five block area beyond the northwest edge of the APE showed only the Humane Society, surrounded by dense housing, and vacant previously industrial lots. There also was a newly constructed Washington Recreation Center and playground on the grounds of the former reservoir across Bedford Avenue directly north of the APE. Within the APE, new construction was interspersed in the area at this time incorporating the latest fireproofing principles, including concrete construction and steel frames. These new structures were therefore able to be taller than their predecessors.

Several social improvement organizations continued to serve the needs of the working class and poor in the early part of the century. One vibrant example of this was the Hill District Community Council (HDCC) established December 1936 (Urban League of Pittsburgh Papers 1936). These papers revealed committees that were concerned with gardens, housing, health, law observance and enforcement, juvenile delinquency, and recreation. Other important social welfare organizations included the Irene Kaufman Settlement House, located at 1835 Centre Avenue (founded in 1895), the Kay Community Club for Boys at 2038 Bedford Avenue (a member of the Boys Club of America), and the YWCA at 59 Chatham Street. Photographs illustrating the fair condition of the housing stock at this time may be seen in Figure 14 through Figure 17. They demonstrate modest masonry two and three-story residences and commercial blocks.

PITTSBURGH’S RENAISSANCE AND URBAN RENEWAL

Following national trends, urban renewal in the context of Pittsburgh placed the power of redevelopment in the hands of Pittsburgh's Allegheny Conference on Community Development (ACCD) and the Urban Redevelopment Authority of Pittsburgh (URA). Their collaboration occurred in the name of progress, without regard to the opinion of the people who it affected drastically. The ACCD combined the efforts of politicians, industrialist-turned philanthropists, and business leaders. Specifically, the efforts were spearheaded by Mayor David L. Lawrence, Mayor of Pittsburgh and Chairman of the URA. Typical of urban renewal efforts, people and businesses affected by their decisions were not involved in the process of "improvement." These leaders desired a clean, business-oriented atmosphere, as opposed to the smoky city of its industrial heyday.

One such desired improvement was to extend the grid of downtown eastward, to create a new Cultural Center. There, plans were made to clear a portion of the primarily African-American neighborhood, to make way for a new multi-purpose arena. The Hill’s vibrant culture and jazz scene, lending it to be known as “Little Harlem,” was largely ignored by the politicians that were guiding the decision-making of the Hill’s fate. Famous jazz artists, such as Sarah Vaughn, Lena Horne, Billy Eckstine, Oscar Peterson, Miles Davis, John Coltrane, Dizzy Gillespie, Cab Calloway, Duke Ellington, and Stanley Turrentine all played the Hill (Fuoco 1999).



Figure 14: Typical Hill District thoroughfare, July 1938.
(courtesy of the Library of Congress).



Figure 15: Typical Hill District alley, July 1938.
(courtesy of the Library of Congress).



Figure 16: Typical Hill District infill, July 1938. Note ghost of removed frame building on residence at photo center, above the sheds.

(courtesy of the Library of Congress).



Figure 17: Typical Hill District residential street, July 1938, with solid low-rise masonry construction.

(courtesy of the Library of Congress).

Thousands of displaced African-Americans were forced to leave the Hill District, without much aid in their relocation. Most went to the first tier suburbs, or shifted to neighborhoods on the periphery. Cities' lack of effort to aid the displaced spawned Richard L. Leach, in *The Federal Urban Renewal Program: A Ten Year Critique*, to note that "Perhaps the Achilles heel of urban renewal will turn out to be the relocation of the residents of areas to be renewed" (Leach 1994). The far-reaching socio-economic results of the great experiment have exacerbated problems of racial tension, and the continued marginalization of the underclass. The Urban Renewal teams' "out of sight, out of mind" attitude along with implied racism managed to uproot minorities, perceived as a slum, despite the actual diversity and rich culture that existed in places like Pittsburgh's Hill District.

Between 1940 and 1970, Pittsburgh's Central City population decreased by 151,543 to 520,177 down from 671,659 persons. This number, taken from census data, illustrates the trends of suburbanization and "White Flight" from the city. In 1939, the APE is seen in an aerial image (Figure 18). The smoky haze of industrial processes clouds the view of a residential street in the APE looking towards the Gulf Tower in downtown (Figure 19). Suburbanization, spawned by the return of GI's after WWII, and the parallel dedication to the building of new highways by the Federal Highway Administration, largely left inner city neighborhoods to blacks and new developments outside city centers to whites. "The FHA [Federal Housing Authority] refused to guarantee suburban loans to poor people, nonwhites, Jews, and other 'inharmonious' racial and ethnic groups" (Chudacoff and Smith 2000:270).

This reduction in white population is in contrast to the Black population increase of 42,585 persons from 62,216 to 104,904 over the same 30 years. This increase is typical of the "Great Migration" of black Southerners northward to industrial cities. In this period, blacks often flocked to inner cities where housing was affordable, though less desirable to already established white immigrant populations (Chudacoff and Smith 2000:272).

Residents of many older urban neighborhoods were increasingly likely to be either poor white ethnics, who could not afford to move to the periphery, or new nonwhite migrants. A fierce struggle for available housing and an escalating anxiety in white communities adjacent to swelling black areas resulted from the sudden rise in minority populations (Chudacoff and Smith 2000:271).

In 1939, Robert Moses, the infamous New York urban planner, visited Pittsburgh to aid in its budding planning process. This began in earnest in 1943, with the creation of the Allegheny Conference on Community Development (ACCD). It was granted a charter by the state in 1944.

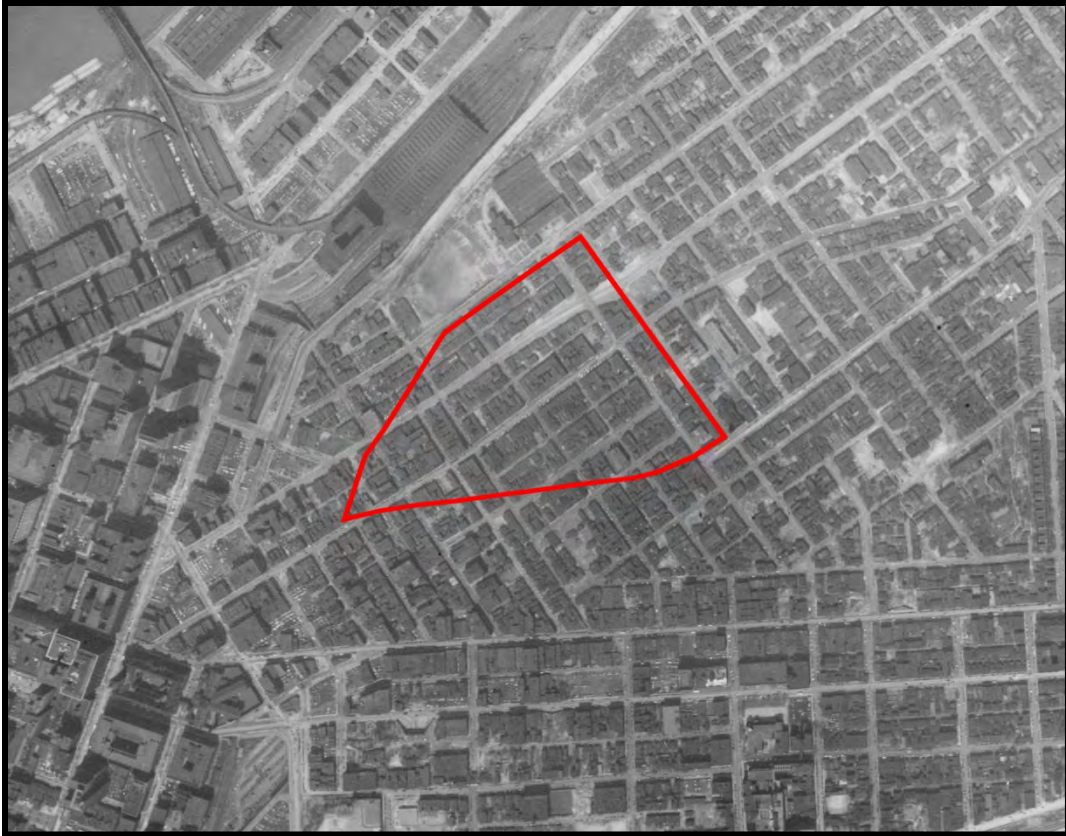


Figure 18: Archaeological APE shown on a 1939 aerial photograph of the Project Area.



Figure 19: Typical Hill District residential street, January 1941.

(courtesy of the Library of Congress).

The Allegheny Conference on Community Development was formed as a private citizens' organization to spearhead improvement programs such as the Penn-Lincoln Parkway. When the war concluded in 1945, work on the parkway was ready to begin. Through the influence of the Attorney General James H. Duff and Richard K. Mellon, Governor Edward Mrinz approved \$57 million for the improvements of Pittsburgh, of which were the Parkway, Cross-town Boulevard, and Point State Park construction. The plan was devised by Robert Moses, who was known for planning New York City's highway transportation system (Kitsko 2009).

As cities, such as Pittsburgh, worked to rejuvenate poor neighborhoods, a Federal bill in 1945 "set a goal of 1.25 million new housing units a year to be built for all social classes during the next 10 years" (Chudacoff and Smith 2000:273). With the lobbying influence of the national Association of Real Estate Boards, realtors and builders, in turn "supported government subsidy for private redevelopment of what they labeled as blighted, meaning unprofitable, tracts in inner cities" (Chudacoff and Smith 2000:273). This in turn modified the focus of the 1937 Housing Act to slum clearance. The legislation was finally enacted in the U.S. Housing Act of 1949. This set in motion the nation-wide trend of Urban Renewal, enabling

...slum clearance, public housing, and expanded mortgage insurance through the FHA...Title I of the bill established the principle of *urban redevelopment*, committing federal funds to the clearance of slums by local redevelopment agencies (Chudacoff and Smith 2000:274).

The Urban Redevelopment Authority (URA) of Pittsburgh was formed in 1946, enabling Pittsburgh to have the authority to engage in municipal renewal efforts. The tool by which renewal efforts were undertaken was eminent domain, by which governmental authorities were permitted to seize private property for public use, with "just" compensation.

Soon after this, in 1947, noted downtown retailer Edgar Kaufmann sponsored architects Mitchell and Ritchey to create the *Pittsburgh Progress Plan* (Figure 20). The purpose of this study was to examine the potential for development of the Lower Hill, and to incorporate the latest architectural ideas of modernism into the city fabric. They were influenced by popular design theories of modernism that incorporated streamlined profiles, and strong geometric forms. Following these notions, they were very likely inspired by Le Corbusier's Radiant City plan, cruciform towers (a copy built as Gateway Center downtown) and super blocks (Aurand 2006:54-61).

The Sun Telegraph reported in 1947 that "...churches will not be affected by the program. Residents of the district, which has been classified as 'blighted,' might be housed in projects possibly built by the Pittsburgh Housing Authority" (Sun Telegraph 1947). This projection, however, did not prove to be true. During the subsequent urban renewal of the Lower Hill District, several religious buildings were demolished in the current APE and throughout the Lower Hill, along with the rundown tenements and other residential and commercial buildings within the corridor. One of the most notable was the razing of St. Peter's Roman Catholic Church.

Additionally, the Allegheny County Department of Economic Development (ACDED) was created in 1950 to participate in countywide development efforts. This unique public-private partnership along with the ACCD and the URA pooled the resources of civic leaders and prominent businessmen. Their collaborations led to Pittsburgh's "Renaissance," making Pittsburgh one of the first U.S. cities to engage in extensive urban renewal.

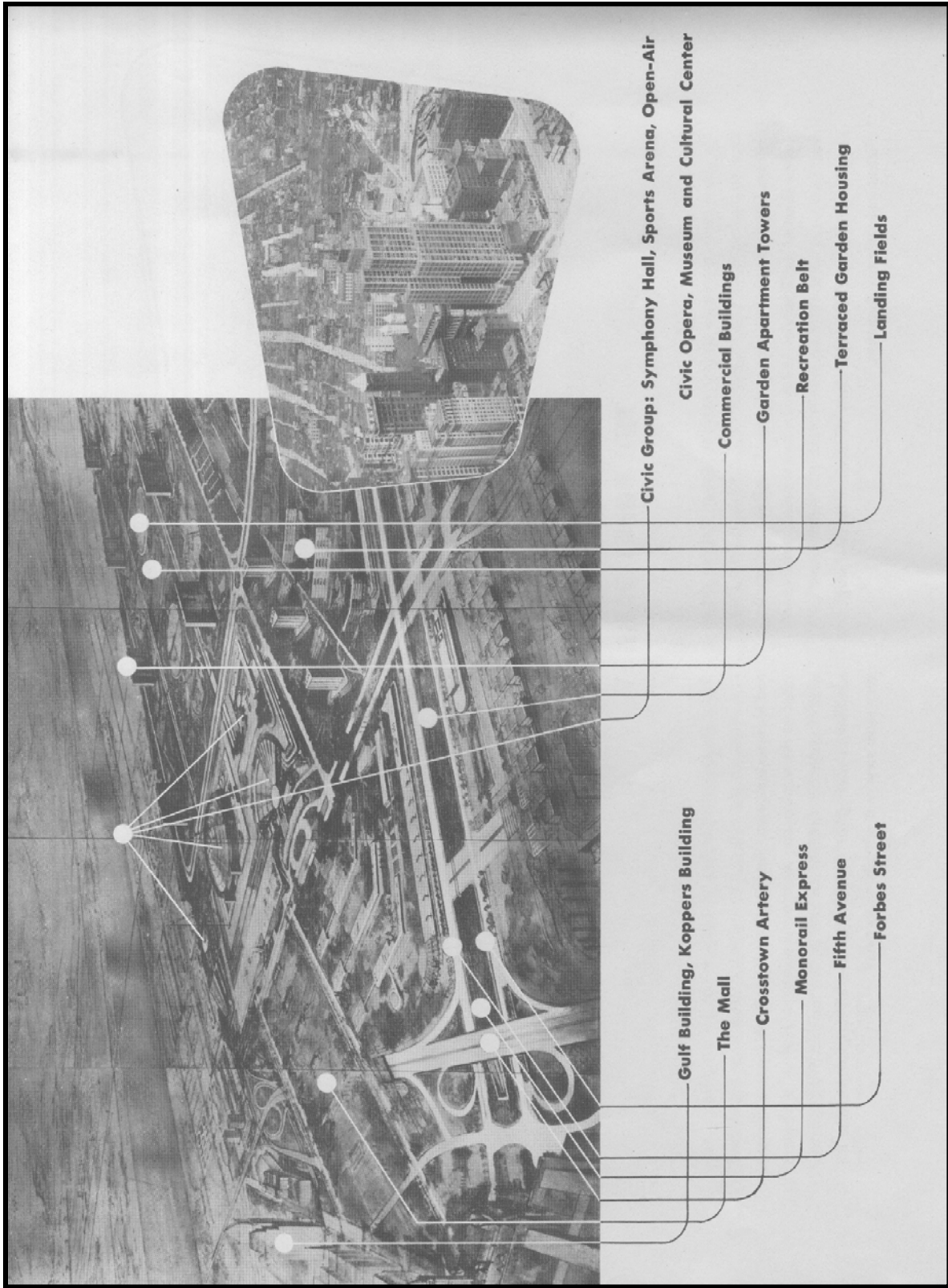


Figure 20: 1947 Pittsburgh Progress Plan.

Change to the built environment of the Lower Hill District officially began in 1950 when the City of Pittsburgh Commission on Planning (CPCP) published reports that designated 91.693 acres as blighted. These CPCP reports of 1950 and 1951 examined the Lower Hill District, parcel by parcel, scrutinizing housing deficiencies in accordance with the Urban Redevelopment Law of 1945. These areas are seen in the 1951 Sanborn Map (Figure 21). The blighted area was described as “An area bounded by Bigelow Boulevard, the line between the Second and Third Wards, Ridgway Street, Crawford Street, Bedford Avenue, Fullerton Street, Colwell Street, Pride Street, Fifth Avenue, Sixth Avenue, Wylie Avenue, and Tunnel Street” (City Planning Commission of Pittsburgh [CPCP] 1950). A year later, the CPCP increased that designation by 13.885 acres (Figure 22). This wider swath of 105.578 acres included “An area bounded by Fullerton Street, Bedford Avenue, Crawford Street, Ridgway Street, the line of the projection of Manilla Street between Ridgway and Cliff Sts., Manilla Street, Bedford Avenue, Crawford Street, and Colwell Street” (CPCP 1951).

The CPCP reports used seven federally mandated criteria to define blight. The criteria were: 1) unsafe, unsanitary, inadequate or overcrowded condition of dwellings; 2) inadequate planning of the area; 3) excessive land coverage by buildings; 4) lack of proper light, air and open space; 5) defective design and arrangement of buildings; 6) faulty street and lot layout; and 7) economically or socially undesirable land uses (CPCP 1950). These criteria were applied to the Lower Hill District properties, and this area of the Lower Hill then became known as “Redevelopment Area Number 3” (Figure 23) (CPCP 1951).

Primarily African American housing and businesses were subsequently razed to make way for public housing, luxury high-rise towers (seen in Figure 21), and a massive I. M. Pei-designed apartment complex (Figure 24). The giant scale of this housing complex did not relate well to the rest of the low-rise neighborhood.

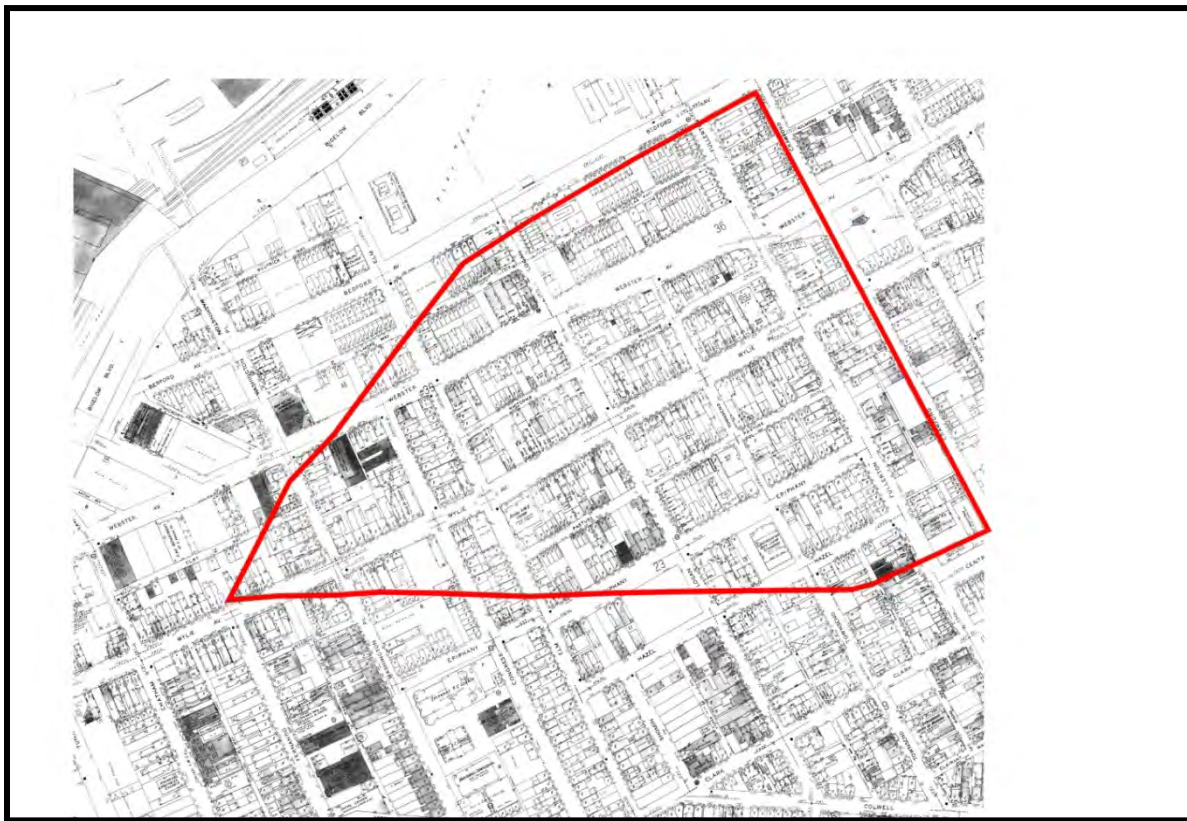


Figure 21: Archaeological APE shown on the 1951 Sanborn Fire Insurance Map (Sanborn 1951).

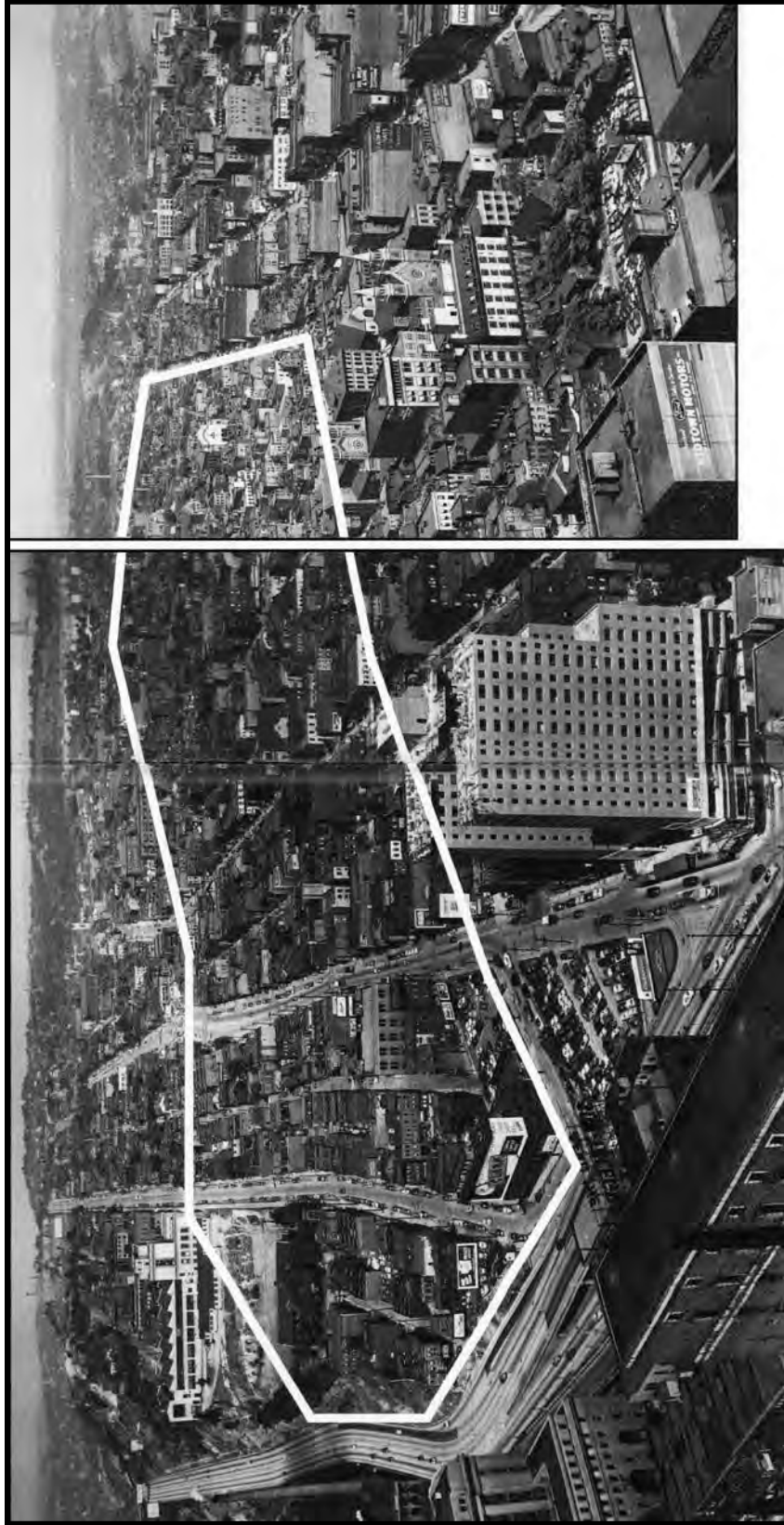


Figure 22: Lower Hill before demolition, 15 July 1951. White line outlines slated demolition area.
(courtesy of the Carnegie Mellon University Hunt Library Architecture Archives.)

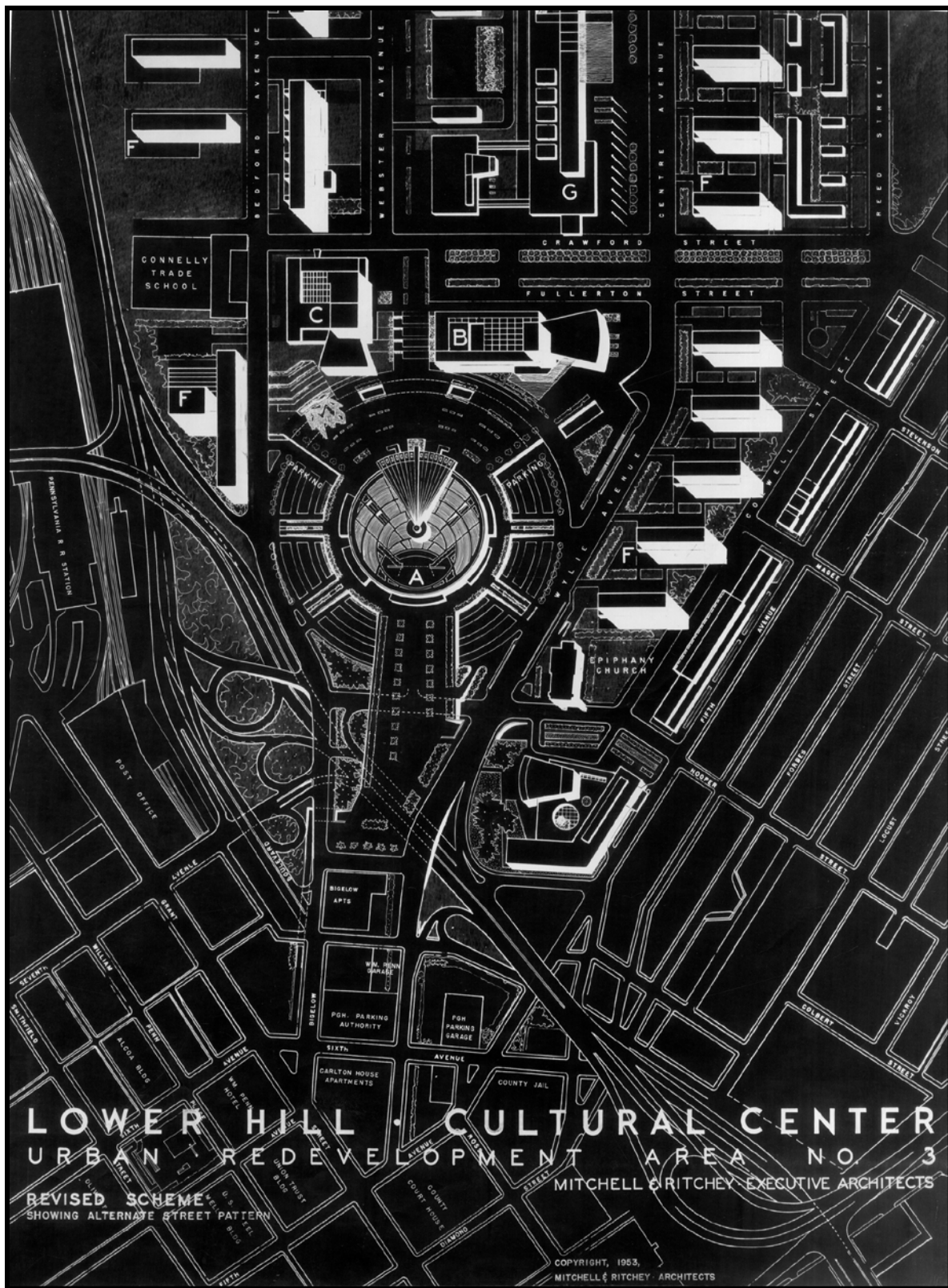


Figure 23: 1953 Lower Hill Cultural Center Revised Scheme.
(courtesy of the Carnegie Mellon University Hunt Library Architecture Archives).

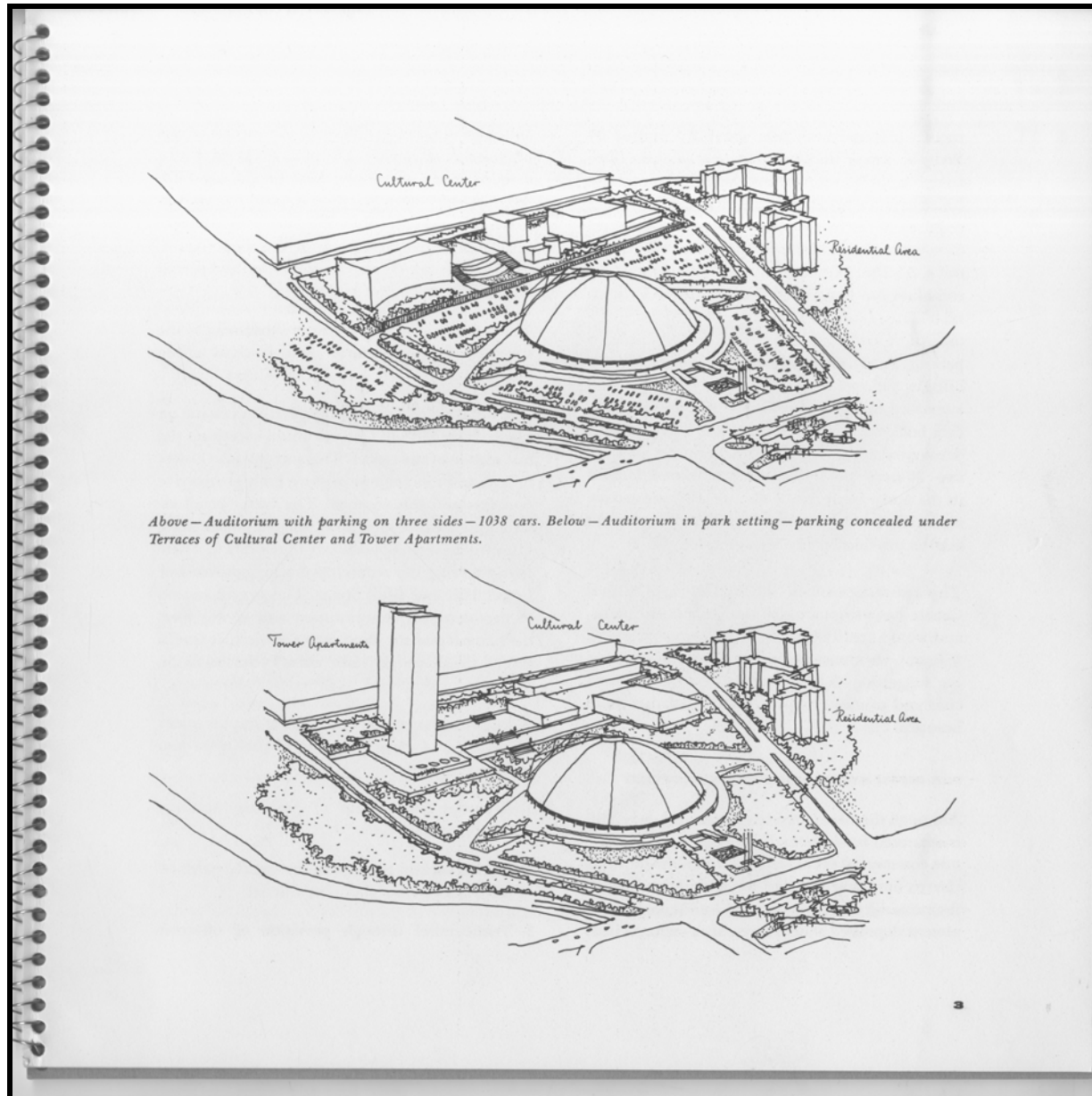


Figure 24: I.M. Pei proposed Hill District apartment and cultural center schemes.
 (courtesy of the Carnegie Mellon University Hunt Library Architecture Archives).

ARENA CONSTRUCTION TO PRESENT

The URA announced its plans to renew the Lower Hill District on March 16, 1951. Over the next few years, several redevelopment schemes for re-use of the property were considered. The Pittsburgh architectural firm of Mitchell & Ritchey was retained in 1953 to examine the Hill's potential for reuse. They were subsequently hired to design a new multi-use public auditorium, later known as the Civic Auditorium, the Civic Arena, and most recently as the Mellon Arena. The URA began to purchase approximately 1,000 parcels of property covering 95 acres in the Lower Hill District on March 26, 1956. Planned use of the area included 20 acres for the Civic Auditorium with retractable roof, parking spaces and park-like surroundings, 10 acres for future cultural developments such as a theatre, symphony hall and an art gallery, 12 acres for residential use in the form of modern apartment buildings, 20 acres for commercial use, permitting the expansion of commercial activities beyond the present boundaries of the Golden Triangle, 32 acres for streets, including the right-of-way for the Crosstown Boulevard Chamber of Commerce of Greater Pittsburgh [CCGP] 1961). The only structure spared from demolition was the Epiphany Catholic Church (CCGP 1961).

About 1,600 families, or 8,500 people, were displaced as a result of these renewal endeavors. Groundbreaking for the new arena was on April 25, 1956, and the first concrete was poured on October 29, 1958. Figures 26 through 30 illustrate the construction process through completion. Finally, the new public auditorium opened on September 17, 1961 (CCGP 1961).

The Arena was demolished in 2012, following the construction of the Consol Energy Center, just south of the APE, next to the Epiphany Roman Catholic Church. The Consol Energy Center is the new home of the Pittsburgh Penguins. East of the APE, measures have been taken recently to reverse the bulldozer renewal trends of the 1950s and 1960s. The City of Pittsburgh's redevelopment efforts have in recent years been working in tandem to counteract the damage done by urban renewal, utilizing new public-private partnerships for development. This in part has been attempted on the Lower Hill via weaving New Urbanism trends into the existing urban fabric, including the Crawford Square development in 1995 and the Bedford Hills Homes in 1999. Both projects attempted to add residential density, at a human scale into the neighborhood. These efforts thereby abandoned the titan scale of the 1950s and 1960s redevelopment schemes. The important social component of these mixed-income developments was to not distinguish between market rate and subsidized housing. Eliminating the stigma of assisted living was important to the success of these projects.

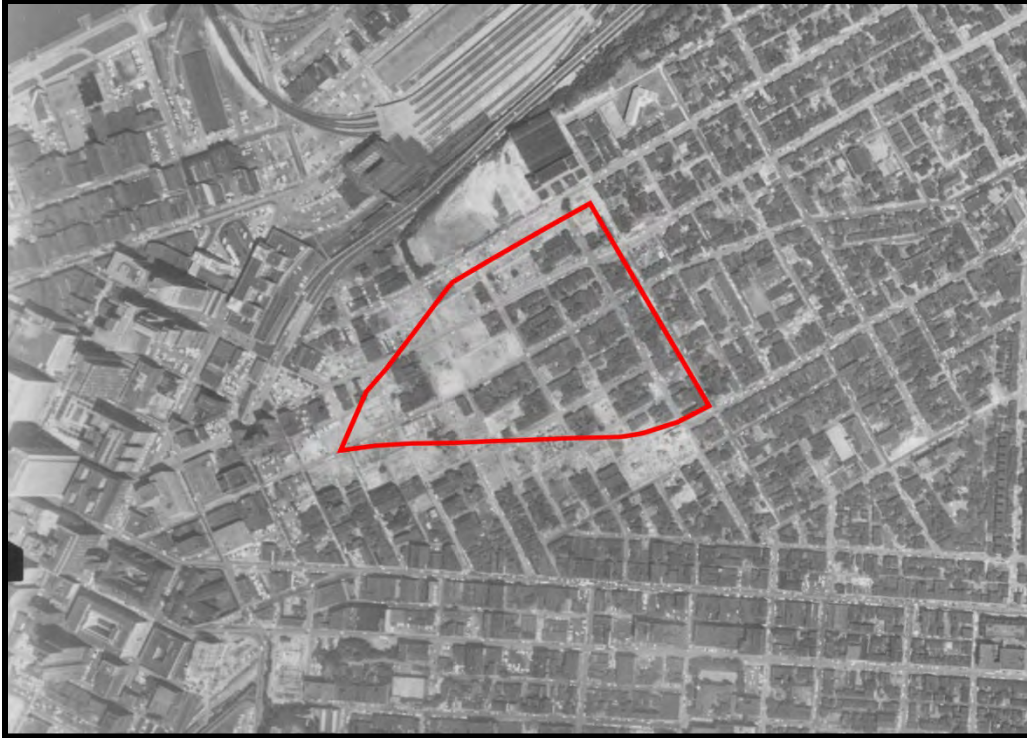


Figure 25: Archaeological APE shown on a 1957 aerial photograph.
(Keystone Mapping Company 1957)



Figure 26: Project area in June 1958.
(courtesy Heinz History Center Archives)



Figure 27: Project area in August 1958.
(courtesy Heinz History Center Archives)



Figure 28: Project area in January 1959.
(courtesy Heinz History Center Archives)



Figure 29: Civic Arena under construction, 1958-61.

(courtesy Heinz History Center Archives)

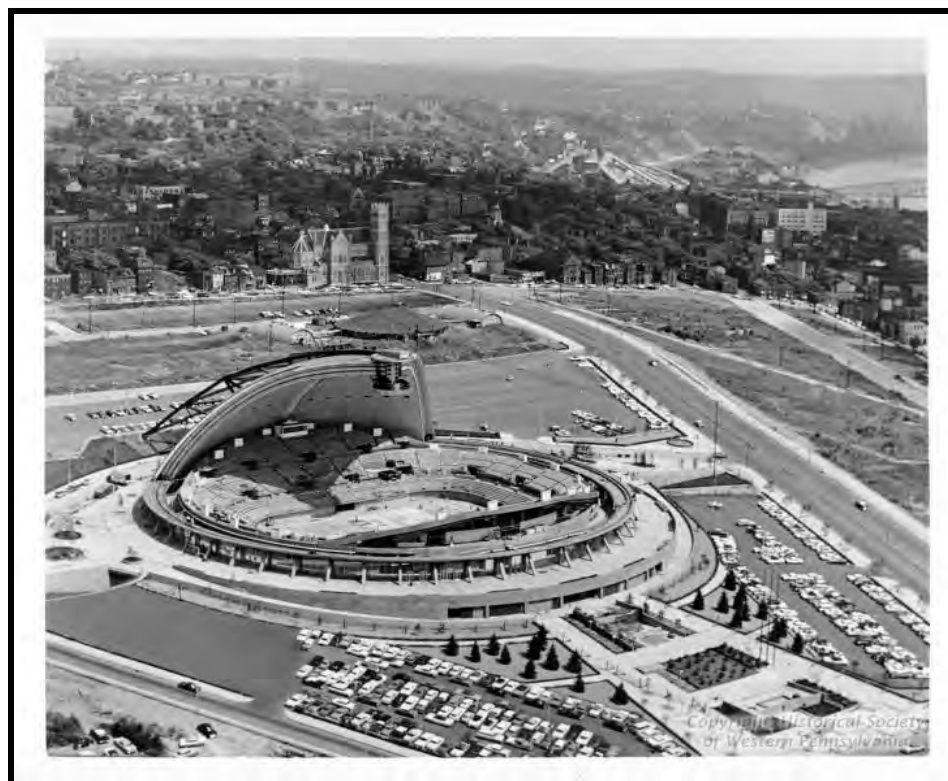


Figure 30: Civic Arena, ca. 1961.

(courtesy Heinz History Center Archives)

BACKGROUND RESEARCH

Prior to the Phase I/II archaeological investigations, background research was conducted utilizing the Pennsylvania Historic and Museum Commission, Bureau for Historic Preservation's (BHP) Cultural Resource Geographic Information System (CRGIS) web-based database. CRGIS provided information on previously recorded archaeological sites, Cultural Resource Management surveys, and historic structures within the APE, the adjacent Hill District to the east, and the central business district (Golden Triangle) to the west. Additional research was conducted at the BHP in Harrisburg on December 9 and 10, 2009. The Pennsylvania Archaeological Site Survey files were reviewed for any additional information that promotes a better understanding of archaeological resources already recorded within the above-designated area. Supplemental information was also obtained from cultural resource survey reports, National Register nomination files, and a variety of historic maps, aerial imagery, and photographs.

Archaeological Sites

No archaeological sites were located within the Lower Hill District Redevelopment APE. However, research indicated that 31 previously registered sites are situated within a short distance of the Project Area. Of these, 13 are classified as multiple-type historic sites, 7 as historic domestic sites, 3 as historic commercial sites, 3 as historic industrial sites, 2 as mixed historic/prehistoric sites, 1 as a historic military site, 1 as a historic religious site, and 1 site lacks temporal and functional designation. Table 1 lists the previously recorded archaeological sites within the central business and Hill districts of Pittsburgh.

Table 1: Archaeological Sites within the Central Business and Hill Districts of the City of Pittsburgh

Site Number	Site Name	Site Type	Cultural/Temporal Affiliation	Topographic Setting	Comments
36AL91	Fort Pitt	Historic Military Site	Historic	Floodplain	
36AL228	PPG	Historic-Unknown/Other/Multiple Types	Historic/ Possible Prehistoric	Floodplain	Features - a standing building/structure, foundation, cistern, water well, privy and kiln; Artifacts - historic ceramics, glass, metal, gunflints, redware, clay pipes; possible unknown prehistoric component
36AL229	Gateway Center Station Feature 4	Historic Domestic Site	1825-1875	Floodplain	Features – water well, cistern Artifacts – historic glass, ceramics, clay pipes, and metal
36AL230	Gateway Center Station Feature 5	Historic – Unknown/Other/Multiple Types	Historic	Floodplain	Feature – water well Artifacts – historic glass
36AL231	Gateway Center Station Feature 6	Historic – Unknown/Other/Multiple Types	1850-1875	Floodplain	Feature - water well; Artifacts - historic ceramics both foreign and domestic, glass, perishables; 1 of 5 closely associated wells/cisterns uncovered during subway construction

Site Number	Site Name	Site Type	Cultural/Temporal Affiliation	Topographic Setting	Comments
36AL232	Gateway Center Station Feature 7	None given	1850-1875	Floodplain	Feature – water well Artifacts – historic glass and ceramic
36AL233	Gateway Center Station Feature 8	Historic – Unknown/Other/Multiple Types	1800-1900	Floodplain	Features – cistern, pit
36AL250	Pitt Light Rail Transit System-F9	Historic – Unknown/Other/Multiple Types	1850-1900	Rise in Floodplain	Feature - water well; 1 of 6 wells/cisterns uncovered during subway construction
36AL253	First Side Parking Lot	Historic – Unknown/Other/Multiple Types	1800-1900	Floodplain	Features - foundation and water well; Artifacts - historic ceramics and glass
36AL262	Eighth Street	Historic and Prehistoric	Historic/Prehistoric	Floodplain	Features - foundation, water well and privy; Artifacts include lithic debitage (1 flake), historics span 19 th century
36AL264	Seventh Street	Historic – Unknown/Other/Multiple Types	1800-1900	Floodplain	Features present include historic
36AL311	City Center Site	Historic – Unknown/Other/Multiple Types	1800-1900	Terrace	Canal tunnel
36AL337	Cokain Coke Ovens	Historic Industrial Site	1825-1850	Terrace	No features found
36AL338	Arthursville	Historic Domestic Site	1825-1850	Terrace	19 th Century historic neighborhood
36AL339	Enochville	Historic Domestic Site	1825-1850	Terrace	Early 19 th century historic neighborhood; may have been associated with the Underground Railroad
36AL341	St. Paul's Roman Catholic Orphan Asylum	Historic – Unknown/Other/Multiple Types	1875-1900	Terrace	Feature - standing building/structure
36AL342	African Methodist Episcopal Church	Historic Religious Site	1825-1850	Terrace	Feature - building/structure
36AL343	Cesspool Site	Historic – Unknown/Other/Multiple Types	1800-1900	Terrace	Feature - privy
36AL344	St. Joseph Protectors for Homeless Boys	Historic – Unknown/Other/Multiple Types	1875-1925+	Terrace	Feature - foundation
36AL345	Brick Kilns	Historic Industrial Site	1800-1900	Terrace	Features - kilns

Site Number	Site Name	Site Type	Cultural/Temporal Affiliation	Topographic Setting	Comments
36AL441	Lazarus Lot No 122	Historic Commercial Site	1800-1925	--	Feature – #8 & #9 brick lined water wells; Artifacts – represent commercial and domestic occupation dating to ca. 1850s-late 19 th /early 20 th century period and include ceramics, glass and bone
36AL442	Lazarus Lot #296	Historic Domestic Site	1800-1925	--	Feature – #3 brick lined well, #4 pit/well/privy, #5 pit/well/privy, #6 brick lined well; Artifacts from #3 and #6 include 19 th – 20 th century domestic debris including ceramics and bone; #4 and #5 artifacts consist of a domestic assemblage ca. 1810-1030s of ceramics and bone
36AL443	Lazarus Lot #299	Historic Commercial Site	1800-1925	--	Features - #1 brick lined well, #7 brick foundation; Artifacts from #1 indicate a presence of minimally 2 commercial occupations including a drug store and a china/glassware shop; #7 artifacts include glass, ceramic and misc. architectural debris
36AL501	Lead Factory Site	Historic Industrial Site	1800-1900	Terrace	Features – Foundation; Artifacts – ceramics, oyster shells, mammal bone, glass and leather shoe fragments
36AL520	Ogle Way Site	Historic Domestic Site	1900-1925	Terrace	Features – brick lined open shaft, iron pipe, concrete and stone footers, tile pipe, deposit of cinders, ash and 20th c. window glass; Artifacts - glass
36AL526	Synagogue Site	Historic Domestic Site	1800-1900	Terrace	Features – foundation; Artifacts – historic ceramic; possibly eligible under Criterion D

Site Number	Site Name	Site Type	Cultural/Temporal Affiliation	Topographic Setting	Comments
36AL527	Colonel Anderson Site	Historic – Unknown/Other/Multiple Types	1775-1850	Terrace	Features – brick and stone foundation walls; Artifacts – historic ceramics; possibly eligible under Criterion D
36AL531	Liberty Center Site	Historic – Unknown/Other/Multiple Types	Historic	Terrace	Features – wall, foundation, canal bed; Artifacts – historic ceramics, clay pipe, glass, textiles, wood, faunal, metal
36AL536	The Ingoldsby Inn Site	Historic Commercial Site	Ca. 1850-1920	Terrace	Feature – Brick well shaft; Artifacts include ceramics, glass, and metal
36AL537	Arena	Historic Domestic Site	1850-1925+	Terrace	Features – foundation, storage/trash pits; Artifacts – Textiles, coins, buttons, toys, brick, clay pipes, redware, historic ceramics, metal, glass, faunal
36AL581	Forks of the Ohio	Historic/Prehistoric	Archaic, Woodland, Protohistoric, Contact-Historic, 1550-1925+	Floodplain	Features – circular houses, hearths/fire pits, midden areas, postmolds, burials, cellar, fence line, fortification, foundation, pit/posthole/postmold, privy, standing building/structure, wall; Artifacts include prehistoric ceramics, pp/ks, debitage, Historic ceramics, glass, glass trade beads, gunflints, metal, redware, textiles; Radiocarbon dates – 7220 +/-40, 7320 +/- 40, 4490 +/- 40, 4970 +/- 40

In total, eight sites are within 1 km (0.6 mi) radius of the APE. The Arena Site (36AL537) is located near the southwestern corner of the APE. Consisting of brick and stone foundations and storage/trash pits, it represents a historic domestic locus dating from ca. 1850 to 1925. Seven other sites (36AL338, 36AL339, 36AL341, 36AL342, 36AL343, 36AL344 and 36AL345) are located in a fairly tight cluster northeast of the APE. Two of these, the Arthursville (36AL338) and Enochville (36AL339) sites, are historic 19th century neighborhoods. Both were predominantly Black neighborhoods with possible associations with the Underground Railroad. Three sites, St. Paul's Roman Catholic Orphan Asylum (36AL341), the African Methodist Episcopal Church (36AL342), and the St. Joseph Protectory for Homeless Boys (36AL344), have religious affiliations. The Cesspool site (36AL343) is a privy site dating to 1800 to 1900. Finally, the Brick Kilns site (36AL345) is an 1800 to 1900 historic industrial site with kiln features.

Cultural Resource Surveys

Eight cultural resource surveys have been conducted within, immediately adjacent to, or within 0.80 km (0.5 mi) of the Lower Hill District Redevelopment APE.

Christine Davis Consultants, Inc. (CDC) undertook a number of investigations in the 2000s related to the then-proposed New Pittsburgh Arena/New Multi-Purpose Arena (Davis 2006; Davis and See 2002, 2006), known as the Consol Energy Center since its construction in 2010. In 2002, they developed an historic overview focusing on land-use change to help identify existing and potential cultural resources within the project's APE and Area of Ground Disturbance (AGD) (Davis and See 2002). The APE encompassed the Civic Arena and a section of the Lower Hill District that lies directly south of the Civic Arena while the AGD encompassed land directly south of the Civic Arena across Centre Avenue. The survey identified several Areas of Potential Archaeological Testing and five structures that required new or revised Pennsylvania Historic Resource Survey forms to determine their eligibility for the National Register, including the Civic Arena. No further work was recommended for three other historic structures within the APE.

In 2006, CDC undertook a Criteria of Effect survey for the project (Davis and See 2006). The APE was located south of Centre Avenue. Background research, consultation, a site visit, and field survey were conducted to assess the effects of demolition on historic properties within the APE. Only one historic resource, the Epiphany Church Complex, was recommended for the National Register of Historic Places. The undertaking was determined to have an adverse effect on the resource since three of the four building comprising the complex were scheduled for demolition. Recommended resolutions of the effects included documentation of the property according to state-level standards along with a published article in a local journal focusing on the Epiphany Church Complex and its relationship to the Lower Hill District.

Also in 2006, CDC conducted Phase I and II archaeological surveys for the project (Davis 2006). Phase I testing consisted of a pedestrian reconnaissance and four deep test trenches. The presence of intact cultural features and associated artifacts from two trenches resulted in the identification of the Arena site (36AL537). A Phase II survey was conducted to assess the archaeological integrity of the site and to evaluate its significance for inclusion in the National Register. In total, 40% of the site was excavated through the expansion of one of the Phase I trenches and the hand excavations of one-meter units. Seventeen archaeological features were recorded, including three foundations, two stone walls, two areas of sheet refuse deposits, two postmolds, a builder's trench, a fireplace, a utility vault and pipes, a deposit of ca. 1850 artifacts, a brick feature, a semi-circular feature, and a square feature. Artifacts recovered totaled 2,648. The Arena site represents three chronological periods that include ca. 1840 to 1850, ca. 1890 to 1920 and the demolition level that dates from ca. 1950. Artifacts and features correlate with increases in immigrants to Pittsburgh to meet the needs of the steel industry. The Arena site was determined eligible for the National Register under Criterion D for the information it yielded concerning the history of Pittsburgh, although no additional work was recommended.

The University of Pittsburgh's Cultural Resource Management Program conducted land-use historical assessments along with a Phase I archaeological survey in the Crawford-Roberts Redevelopment Area (Carlisle and Fox 1990; Carlisle et al. 1991; Fox and Carlisle 1990). The project's APE was bounded by Crawford Street to the west, Roberts Street to the east, Bedford Avenue to the North, and Reed Street to the south. Based on documentary research, three areas were mechanically stripped and hand excavated. Five archaeological sites were recorded: St. Paul's Roman Catholic Orphan Asylum (36AL341), African Methodist Episcopal Church (36AL342), Cesspool (36AL343), St. Joseph Protectory for Homeless Boys (36AL344), and Brick Kilns (36AL345). No above-ground structures were identified within the APE. Recommendations included Phase III-level artifact analysis, publication of a monograph focusing on the history of the antebellum African-American community in Arthursville, erection of commemorative

plaques, and archaeological monitoring during construction. However, no additional archaeological work was recommended.

CDC conducted a historic overview for the Crawford Square Phase 3 project to document land-use change and identify existing and potential cultural resources within the project's APE (Davis 1997). The project's APE was bounded by Centre Avenue to the north, Roberts Street to the west, Heldman Street to the east, and Clark Way to the south, including properties on both sides of Clark Way. No archaeological survey work was recommended. One structure within the APE was determined to be eligible for inclusion in the National Register. As a result, Historic American Buildings Survey (HABS) documentation was recommended to mitigate the demolition of the Smolevitz Building. No additional work was recommended for a second historic structure within the APE.

The Carnegie Museum of Natural History (CMNH) conducted a cultural resource survey of the Interstate 279/579 Highway project, including the Crosstown Boulevard I-579 L.R. 1026 Section 3 portion that lies 0.1 to 0.4 mi (0.16-0.64 km) north and west of the Lower Hill District Redevelopment APE (Lantz et al. 1980). The first phase of the survey involved preliminary literature research and informant interviews, through which little archaeological knowledge was gained. The CMNH determined that no significant prehistoric or historic cultural resources would be affected by the project due to the extensive physical alterations that had already resulted from industrialization, urban development, and redevelopment. They recommended that those involved be made aware of the possibility of uncovering artifacts during the construction of this section of the highway.

Wilber Smith and Associates conducted preliminary research as well as Phase I and Phase II cultural resource investigations for the Pittsburgh City Center Project in 1987 and 1990 (Wilber Smith & Associates 1987, 1990). The City Center Project Area lies directly outside the southwestern corner of the Lower Hill District Redevelopment APE. The project included an assessment of prehistoric and historic archaeological sites along with evaluation of historic structures adjacent to the Project Area. No above-ground structures met the National Register criteria of significance and archaeological potential was considered low for most of the APE. Background research determined that impacts to Grant's Hill Tunnel of the Pennsylvania Canal (recorded as the Pennsylvania Canal Tunnel site [36AL311]) would occur. Subsequent Phase II testing resulted in the recovery of artifacts, exposure of building foundations, and identification of the tunnel, yielding important information about bucolic estates in the early 19th Century, canal construction in the 1828-1831 period, immigrant occupation from the 1840s through the turn of the century, and later urban settlement until the 1950s when it was razed to provide parking for the expanding Golden Triangle of Pittsburgh.

Finally, the Light Rail Transit Project encompassed six separate areas within the downtown and North Side portions of the City of Pittsburgh according to CRGIS. One section of this project, designated as ER# 1989-1675-003 in CRGIS, is located approximately 0.1 mi (0.16 km) to the west of the Lower Hill Redevelopment APE. No project information or archaeological sites were found in CRGIS for this section of the project. Therefore, no report was accessed during the site file research trip to Harrisburg.

Historic Maps, Aerial Images, and Photographic Collections

An examination of historic maps, aerials images, and photographic collections was conducted to ascertain the potential for prehistoric and historic materials within the APE. Prior to 1795, historic maps and background research do not indicate any structures within the APE. The first buildings in the area appear on Darby's (1815) *Plan of Pittsburgh and Adjacent County* in 1795 (see Figure 8). An individual named Black had a house near the western portion of the APE, while Tannehill had a residence to the east at the head of an unnamed stream. Topography within the area appears to be typified by the unnamed stream

drainage cross-cutting the eastern portion of Grant's Hill. Additionally, an unnamed road running east from between Fifth and Sixth Street crossed through the northern portion of the APE.

By 1830, Molineux's (1830) map shows both buildings were razed and several roads and streets added to the area. The roads consisted of the Pittsburg and Coal Turnpike crossing through the center of the APE and Walnut Alley and Watson Street to the west (see Figure 9). Between 1830 and 1855, the area appears to have been extensively altered, transitioning from farmlands to residential neighborhoods as depicted by Colton's (1855) map (see Figure 10). The large drainage in the central portion of the APE appears to have been in-filled and streets and alleys subdivided the entire area. The primary streets within the APE were Prospect, Webster, Wylie, Franklin, Washington, Congress, Elm, Logan, Townsend, and Fulton (Figure 10).

The 1872 Hopkins map and the slightly later 1884 Sanborn Fire Insurance map show the area composed primarily of a dense residential development, small businesses, and a public school (see Figure 11). The residences were typically 2 to 3 story frame buildings. Businesses consisted of lumber and furniture sales, cigar factories, stables and horse sales, picture framers, carpenter shops, drug stores, bakeries, print shops and restaurants. The Hancock Public School was located at the corner of Franklin and Logan along the southern boundary of APE. Ethnic religious institutions were also present within the neighborhood and consisted of the previously established Bethel African Methodist Episcopal Church, the Sixth Presbyterian Church, the Mt. Olivet M.E. Church, Holy Trinity R.C. Church, the Carmelite Convent, a Baptist church, and a Catholic college. Additionally, a passenger rail line ran followed Wylie Avenue to Fulton Street and continued on Center Avenue.

Throughout the early Twentieth Century, Hopkins (1903, 1923, 1929) and Sanborn (1905, 1927) maps indicate that population and businesses increased within the APE. The majority of frame buildings were replaced by brick constructions. The local commercial community included cafes, restaurants, barber shops, second hand furniture shops, coopers, locksmiths, tin wares, carpenters, printers, storage spaces, and pool halls (see Figure 12 and Figure 13). The old Hancock School was also razed and replaced by the Franklin Public School ca. 1903. A corresponding increase in social and religious institutions and tenement housing began to appear within the neighborhood by 1929. The earliest photograph within the APE depicts Wylie Avenue near Logan Street looking east in 1918 (Figure 31). It shows a wide cobblestone street with two trolley lines flanked by two- and three-story residential buildings and storefronts. A portion of a Coca-Cola advertisement can be seen on the side of a building.

Photographs in the Pittsburgh City Photographer Collection and the Carnegie Museum of Art's Charlie "Teenie" Harris collection that span the 1920s through 1950s show a bustling, predominantly black neighborhood comprised of mixed residential-commercial buildings (Figure 32). Additional businesses seen in the photographs include money loan, liquor and beer, and grocery stores, dry goods and butcher shops, pharmacies, hotels, laundromats, fruit stands, and a gas station. The neighborhood's commercial district was located along Wylie Avenue and Logan Street. In comparing Figure 30 and Figure 31, the character of Wylie Avenue remained unchanged between 1918 and 1936 with the exception increased motor vehicle use.

A 1957 aerial image shows that several blocks within the APE were razed for the construction of the Arena as depicted in Figure 25. Photographs in the Pittsburgh City Photographer Collection from 1957 depict the areas within the APE being demolished by wrecking balls and debris removal by dump trucks (Figure 33). The arena was completed in 1961, and a 1967 historic aerial image shows the extensive alteration to the area (Figure 34). Currently, the APE is occupied by parking lots separated by landscaped vegetation, pedestrian walkways, and the construction zone previously occupied by the arena (Figure 35).



Figure 31: Wylie Avenue near Logan Street in 1918, looking east.
(Pittsburgh City Photographer Collection)



Figure 32: Wylie Avenue near Logan Street in 1936, looking west.
(Pittsburgh City Photographer Collection)



Figure 33: Demolition within the APE related to the construction of the Civic Arena, 1957.
(Pittsburgh City Photographer Collection)



Figure 34: Archaeological APE shown on a 1967 aerial photograph.



Figure 35: Archaeological APE shown on 2006 aerial photograph.

(Pennsylvania Department of Conservation and Natural Resources and United States Geologic Survey 2006)

RESEARCH DESIGN AND METHODS

Historic Period Resource Potential

This discussion of the potential for historic period archaeological resources is based on the information gathered concerning historic period land use within the project APE. Further, this discussion is integrated with a discussion of Thematic Study Units that have been developed for the Project Area.

Thematic Study Units

Building upon the data on historic land use of the Project Area, a number of Thematic Study Units have been defined to focus and guide the Phase I/II investigations. These study units were developed following Cowin's (1985) discussions of the need for directed study in the Pittsburgh urban environment.

In *Pittsburgh Archaeological and National Register Survey*, Cowin (1985) suggests that archaeological projects in the City of Pittsburgh need to develop specific research study units, even at the Phase I level of investigation. The purpose of these study units is to allow the archaeologist to define specific topics that, based on the results of background research, will help to focus the field testing stages as well as allow those resources identified at the Phase I level to be better evaluated as to their potential significance to the interpretation of the development of the Pittsburgh area both before and after European settlement. Therefore, four thematic study units have been defined for the Lower Hill District Redevelopment Project Area:

- Ethnicity
- Socio-Economics
- Diet and Health
- Early Commercial and Urban Development

These study units are not mutually exclusive, but rather overlap. This is especially true of ethnicity, within which issues of diet and health, and socio-economic status will be examined.

Ethnicity

This study unit addresses issues of changing ethnic composition of the Project Area from the mid-nineteenth to the mid-twentieth centuries. Initially, the Lower Hill District was populated with German and other European immigrants. Jewish immigrants settled in the area during the late nineteenth century and the African-American population increased during the 1880s and in the years surrounding World War I. The Lower Hill District shifted from a neighborhood of primarily European immigrants to an African-American neighborhood over a period of several years. Therefore, it provides an opportunity to examine the shift in ethnic composition of a Pittsburgh neighborhood. Further, since some Euro-American families and businesses remained into the mid-twentieth century, an opportunity exists to compare material cultures of the two groups who were living side-by-side. Additionally, diachronic changes within these two groups can also be examined. Topics to be examined with respect to ethnicity are diet and health, socio-economic conditions and changes, and land use of individual properties.

The archaeological examination of this study unit is dependent upon the preservation of archaeological deposits associated with both ethnic groups. Furthermore, these deposits must contain sufficient chronological markers that enable them to be tied into the surviving historical documents related to the ethnic occupation of a specific property over time. Archaeological deposits capable of meeting these requirements include privies, wells and stratified yard deposits. These deposits would be found in yard areas associated with former residential areas.

Socio-Economic Status

During the early historic occupation of the Lower Hill District, the inhabitants tended to be European immigrants. The neighborhood began to change into a well-known predominantly African-American community in the years following World War I. This resulted in an influx of unskilled laborers in addition to the large numbers of African-American owned businesses that developed in the Lower Hill District. Thus the Project Area is suitable for examining the changing socio-economic landscape of a Pittsburgh neighborhood. Because of the shift in ethnic status of the neighborhood concomitant with the change in economic standing, these two thematic study units are closely tied. The requirements for archaeological remains needed in order to examine this study unit are the same as those given above for Ethnicity.

Diet and Health

Dietary practices and health are often closely linked with issues of ethnicity and socio-economic status. With the changing ethnic make-up and economic shift in the Lower Hill District during the late nineteenth and early twentieth centuries, the Project Area holds the potential to examine issues of diet and health among different ethnic groups synchronically as well as diachronically. Further changes in dietary practice should be able to be addressed diachronically within a single ethnic group as socio-economic changes occurred in the early years of the twentieth century.

Archaeological deposits that most readily lend themselves to the study of diet and health are those that have the highest potential for the preservation of both faunal and floral remains; features such as former wells and privies being optimal. However, these types of remains are often recovered from the matrix of other types of features as well as scree deposits of trash found in stratified yard deposits. Again, the most likely archaeological remains to contain artifacts and ecofacts needed to address this study unit are privies, wells, and stratified yard deposits found in direct association with specific properties for which historical documents related to ethnic and socio-economic status are available.

Early Commercial Development and Urban Development

The Lower Hill District Project Area was witness to early and continued commercial development in the City of Pittsburgh. These early businesses included cigar factories, pharmacies, hotels and restaurants, laundries, clothing stores, and grocery stores among others. The Project Area offers the opportunity to examine archaeologically these early commercial endeavors. Remains associated with these properties would be foundations, and features specific to the individual industries such as collections of glass containers associated with pharmaceutical use.

Historic Archaeological Potential

Using information gathered and presented in the Historic Land Use section of the report, the Project Area was evaluated for its potential to contain significant, historic period, archaeological resources that can be used to address the thematic study units just defined. Based on historic documentation, including maps, the following types of resources are anticipated.

Domestic Resources

Three of the four study units, Ethnicity, Socio-Economic Status, and Diet and Health, are all dependent on the identification of intact privies, wells, and stratified yard deposits associated with residential structures. The most likely areas in which to find these deposits include the backyard areas of frame houses, row houses, and apartment complexes found throughout the APE.

Industrial Resources

Industrial resources may help address the Early Commercial Development and Urban Development thematic study unit as well as provide information on socio-economic status. Small-scale factories within the APE likely attracted skilled and unskilled laborers, helping the neighborhood grow and urbanize. Diachronic changes in socio-economic status may be evident with the residents of the Lower Hill District as industries emerged and receded.

Commercial Resources

In a similar fashion as industrial resources, commercial resources may help address the Early Commercial Development and Urban Development thematic study unit and provide information on socio-economic status. Historic maps of the APE show numerous small businesses within a heavily mixed commercial-residential neighborhood. Such businesses provided goods and services to the residents of the Lower Hill District, and archaeological evidence along with archival research may reveal consumer patterns related to socio-economic standing.

Religious Resources

As with domestic resources, religious resources can address the Ethnicity, Socio-Economic Status, and Diet and Health thematic study units. A number of religious institutions tied to particular ethnicities existed within the APE. Evidence of their adaptability to the changing ethnic composition of the neighborhood may be evident along with fluctuations in their social standing as these changes occurred. Moreover, many of these institutions also served as residences for clergy. Therefore, they may contain evidence of diet and health within domestic features such as wells and privies.

Unknown/Other/Multiple Resources

Historic maps of the APE reveal a number of places that do not classify under the above resource types. Such places include bathhouses, social clubs, social halls, and a movie theater. These resources can reveal information on the Ethnicity and Socio-Economic Status thematic study units. Ethnicity and social standing may have restricted membership and access to bathhouses and social clubs.

Prehistoric Archaeological Potential

The potential for intact, significant prehistoric archaeological sites within the Project Area is considered to be very low. The disturbance due to urban development over the history of the City of Pittsburgh has been extensive. However, using historic mapping, two trench locations were chosen based on the locations of long existing roads, with the hope that there would have been less disturbance in these areas.

Archaeological Testing Restrictions

Trench locations were chosen based on a review of the historic maps within the testable area. This portion of the APE contained a predominance of domestic and religious resources. As a result, Phase I archaeological testing focused on the identification and recovery of data from these two resource types.

Two domestic parcels were chosen. The first is located at the northeastern corner of the APE, at what was 29 Fulton Street. The second is located along the eastern edge of the APE, at what was 88-90 Crawford Street. These parcels are depicted on the majority of the available historic mapping, dating from as early as 1820 to the early 1950s. Both have been designated as having a high potential for containing intact, potentially significant archaeological resources.

One parcel in the southeast corner of the Project Area is shown as belonging to the Holy Trinity Church and School from the 1850s through the 1950s. This parcel is likely to have potential for intact, potentially significant archaeological resources.

Field Methods

PHASE I

A site visit was conducted on August 22, 2012 to assess the potential to encounter archaeological resources within the APE. With the demolition of the arena in 2012, no standing structures remained. Moreover, no above-ground archaeological remains were encountered. Extensive land modification was noted due to the construction and demolition of the Arena, including an over 100-foot drop in elevation from Lot 2-C-300 (eastern parking lot) adjacent to Crawford Street to Washington Place (Figure 36). Such land modification precluded any expectations that intact buried archaeological deposits would be encountered in much of the APE. Based on the site visit, Lot 2-C-300 was identified as having the greatest potential for containing buried archaeological deposits.

A review of historic mapping and aerial photographs helped locate five areas for subsurface testing within Lot 2-C-300. Two of these areas were selected in order to locate evidence of the neighborhood's infrastructure and historic grid system and possibly intact A horizons under the roadbeds. Such evidence may help spatially orient the findings of the archaeological excavations in relation to historic maps. One area was placed near the perceived location of the ca. 1884 Holy Trinity School. A fourth test area was placed behind a section of row houses adjacent to Crawford Street near its intersection with Centre Avenue in an effort to identify refuse-related features within the backyards of these houses. Similarly, a fifth test area was placed within a small residential block first identified on the 1828 Darby map adjacent to Bedford, Fullerton, and Crawford Streets.

Mechanical trenching determined the presence or absence of buried cultural deposits and defined the vertical extent of those deposits within the areas selected for subsurface testing. Testing consisted of a single 4.5 x 1.5 m (14.76 x 4.92 ft) trench in each of the locations identified during the background research. The trench locations were marked with spray paint prior to excavations, after which a concrete saw was used to cut the parking lot surface. One trench was excavated each day to accommodate parking operations and traffic was restricted near each excavation area according to approved safety protocol. All trenches were backfilled and repaved at the end of the project.

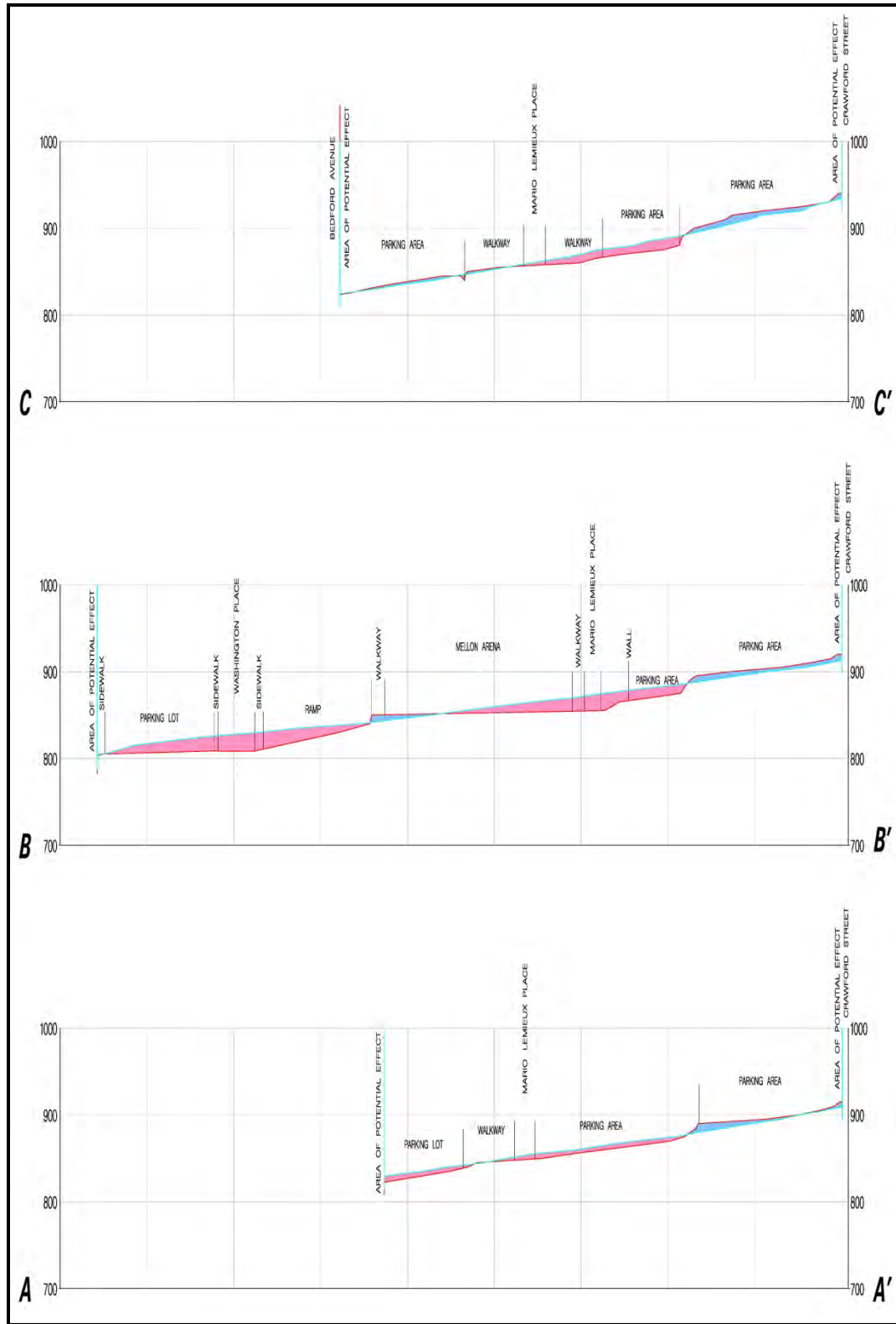


Figure 36: Cross-sections showing cut and fill areas within the Area of Potential Effects.

A-Level Construction, Inc. conducted the trench excavations using a Bobcat E55 compact excavator (Figure 37). Baker archaeologists monitored and directed trench excavations to insure proper documentation and recovery of artifacts and features. The maximum depths of excavations were reached when intact cultural features or culturally sterile soils were encountered. Trenches were mapped in profile and planview, and arbitrary designations ("F" numbers) were assigned to defined strata and cultural features (Jennings 1957). Stratigraphy and features were defined based on subjective criteria such as texture, compaction, friability, apparent composition, and color (following Munsell Color, Inc. notations). Potentially diagnostic artifacts were recovered from the spoil piles as the trenches were excavated. Recovered artifacts were provenienced by trench and retained for subsequent analysis, although in some instances, artifacts were assigned to stratigraphic units or features within trenches. Spatial data for each corner of the trench were recorded using a Trimble GeoXH handheld global positioning system (GPS) using the North American Datum of 1983 geodetic reference system and the Universal Transverse Mercator Zone 17N coordinate system.



Figure 37: Operation of a Bobcat E55 Compact Excavator, facing northeast.

PHASE II

Three archaeological sites were identified during the Phase I survey. Based on the artifacts recovered and the features identified during Phase I investigations, the three sites were recommended for Phase II excavations. Phase II investigations consisted of additional excavations at the three identified sites and intensive background research into 18 properties, including the three archaeological sites, in order to evaluate the identified sites potential eligibility for inclusion in the NRHP.

Additional Lot Specific Land Use Histories

Using a variety of historic documents, detailed land use histories were developed for 18 historic lots, including the three sites identified during the Phase I survey. The 15 additional lots were chosen based on the thematic study units discussed above.

Land use history research began with a review of available historic mapping. Available maps included Colton's (1855) map of the Cities of Pittsburgh and Allegheny from 1855, Hopkins Pittsburgh Estate and Plat Maps from 1872, 1882, 1890, 1900, 1910, and 1923 as well as Sanborn Fire Insurance Maps from 1884, 1893, 1905, 1927, and 1951. The Hopkins maps were accessed as ArcGIS layer files from ESRI's web-based resource center (<http://resources.arcgis.com/en/home/>). These layer files represented geo-referenced mosaics of map sheets originally found in bounded Hopkins atlases archived by the Historic Pittsburgh website (<http://digital.library.pitt.edu/maps/hopkins.html>). The Sanborn Maps were certified and issued in digital format by Environmental Data Resources, Inc. Each map sheet depicting the Melody Lot was geo-referenced in ArcGIS v. 10.1 with the Georeferencing toolbar by linking known points in the modern landscape with corresponding points in the historic maps. Colton's (1855) map was geo-referenced in a similar fashion. By geo-referencing the historic maps and layering them in a GIS, the lots were traced from their earliest appearance to their current context, highlighting changes to building construction and use.

Initially, research of deed records at the Allegheny County courthouse was attempted to identify historic ownership of the 18 lots. However, tracing ownership proved difficult due to a large purchase of lots in the Lower Hill District by the URA between 1952 and 1958. Moreover, historic ownership was not necessarily reflective of occupancy since most housing was tenant-based. As a result, Pittsburgh City directories from 1850 to 1956 were accessed from the Historic Pittsburgh website (<http://digital.library.pitt.edu/p/pitttextdir/>) and ancestry.com for information about the use and occupants of the 18 lots. City directory information included the names of heads of households and other employed individuals along with their occupations. Such information supplemented the more detailed data contained in United States Census from 1850, 1860, 1870, 1880, 1900, 1910, 1920, 1930, and 1940 accessed through ancestry.com. These records included data regarding the names, age, race, marital status, occupations, country of origin, and parental country of origin for each resident of the 18 lots. The country of origin of the residents and their parents revealed trends in immigration into the Hill District.

Digital historic photographs from a number of archives were accessed to help describe the historic lots and help illuminating the overall character of the Hill District in the 20th Century. These archives included the Pittsburgh City Photographer Collection through the Historic Pittsburgh website (<http://digital.library.pitt.edu/images/pittsburgh/cityphotographer.html>) and the Charlie "Teenie" Harris Collection through the Carnegie Museum of Art (<http://teenie.cmoa.org/>). Similarly, newspaper archives, specifically the *Pittsburgh Courier*, *Pittsburgh Press*, *Pittsburgh Sun-Telegraph*, and the *Pittsburgh Post-Gazette* were accessed and searched through Proquest.com and Google Archives. These sources contained stories, including photographs, about the neighborhood and some of the residents.

Finally, valuable information regarding the buildings at 29 Fulton/Fullerton Street, 31 Fulton/Fullerton Street, and 88-90 Crawford Street sites was accessed through the Western Pennsylvania Genealogical Society (WPGS), archives of the Works Progress Administration (WPA) Home Survey project. This survey inspected every home in Allegheny County between 1936 and 1937 for the County Assessment Board (WPGS 2013). The survey used architects, surveyors, draftsmen, and other individuals with similar skills to compile data on each property. The resulting information was typed into datasheets listing three properties per sheet. The front of each sheet contained details regarding the location, dimension, type of structure, construction materials, and utilities associated with the home as well as qualitative information such as the condition of the building, workmanship, and rental value. The back

side of the sheets included plan and elevation schematic maps of each building. They noted the dimensions of the building, additions, and porches as well as the depth of the basement, heights of each story, and the type of roof construction and its height.

All together, these sources allowed for the production of detailed property histories. These histories showed the evolution of this portion of the Lower Hill District from the 1850s until its destruction in the 1950s. In addition, historic building footprints, parcels, blocks, and streets were digitized based on the 1910 Hopkins map to facilitate analysis and graphic display of the information gleaned by the historic research (Figure 38).

Field Investigations

Each of the sites identified during the Phase I survey were evaluated utilizing mechanical equipment to excavate at least 5-25% of the defined site area. Two of the initial trenches placed during the Phase I survey were reopened and expanded in order to further explore identified historic features. Additional trenches at one of the sites (Holy Trinity Church and School) were excavated at different locations to better sample the site. Test units were also excavated in order to sample culture-bearing deposits. Specifically:

- **29 Fullerton Street Site (36AL0635)** - Phase I survey at this site revealed a portion of a building foundation and a large deposit of historic artifacts containing a large number of whole glass bottles and containers. These glass artifacts dated primarily from the 1910s through the 1950s. Phase II excavations encompassed 61.10 m^2 (657.67 ft^2) of the defined site area, which measures 140.76 m^2 ($1,515.13 \text{ ft}^2$) in total extent.
- **88-90 Crawford Street Site (36AL 0636)**—Phase I survey at this site identified 10 features likely associated with the ca. late 19th century rowhouses along Crawford Street. These features include possible brick foundations and a prepared floor. Phase II excavations at this site exposed more of what is believed to be the backyards of the rowhouses, including courtyard and a privy. Phase II excavations encompassed 41.48 m^2 (446.49 ft^2) of the defined site area, which measures 149.71 m^2 ($1,611.47 \text{ ft}^2$) in total extent.
- **Holy Trinity Church and School Site (36AL0637)**—Phase I survey at this site revealed a corner of a stone foundation, a probable undisturbed Ap horizon, a prepared floor and a brick walkway. Phase II excavations at this site exposed additional portions of the school foundation and school yard. Phase II excavations encompassed 77.22 m^2 (831.19 ft^2) of the defined site area which measures $1,594.40 \text{ m}^2$ ($17,161.98 \text{ ft}^2$) in total extent.

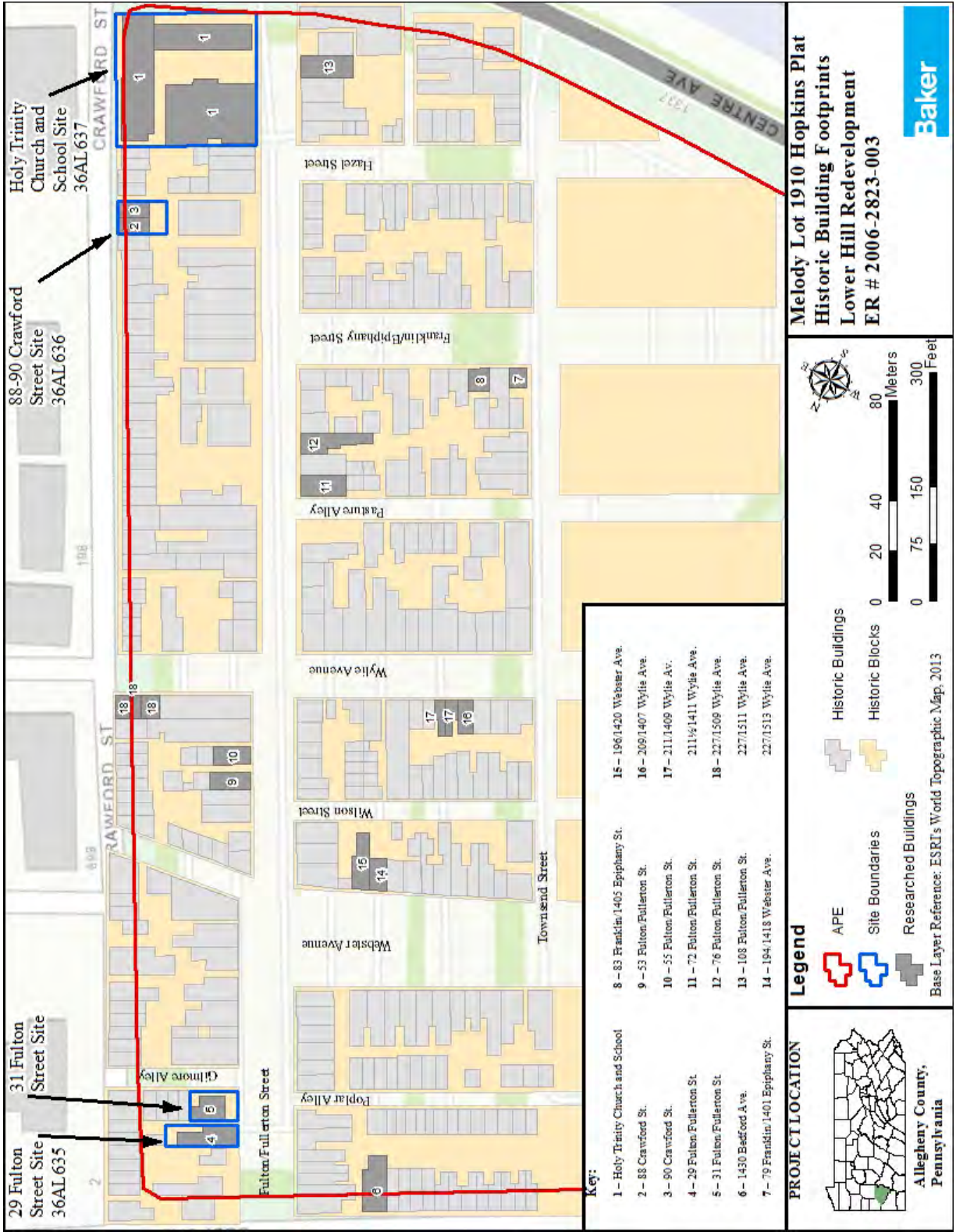


Figure 38: Locations of researched properties.

Laboratory Methods

All artifacts recovered in the course of the field work were processed according to Pennsylvania Historic Museum Commission (PHMC) *Curatorial Guidelines* (State Museum of Pennsylvania 2006).

All artifacts recovered from trench excavations were provenienced by stratum. Upon receipt of artifacts from the field, each artifact lot was assigned a Field Specimen (FS) number associated with its provenience within a trench. All non-perishable artifacts were washed and gently brushed in water. Artifacts were allowed to air dry and bagged in clean, 4-mil, polyethylene zip-lock bags with their associated field tag.

Following assignation of the FS# and washing, the artifacts were analyzed by the appropriate analysts according to temporal period/material type (prehistoric lithic, prehistoric pottery, historic, bone). The results of the analyses were then input into an inventory, a listing of individual artifacts/quantities by field specimen number.

Subsequently, a catalog was generated for each site, thereby assigning a unique catalog number to each discrete provenience within the site. As per the PHMC curatorial guidelines, each catalog number consists of the Smithsonian trinomial site number, a catalog (lot) number, and, where warranted, a specimen number. Smithsonian trinomial site numbers were provided by the PHMC.

All artifacts greater than an inch in size were labeled with the complete catalog number. First, a clear coat of Paraloid B72 in an acetone solution was applied as a base coat. The catalog number was written using black or where necessary, white waterproof ink and a clear overcoat of the Paraloid B72 solution was applied. Artifacts too small to be labeled were placed in 4-mil, polyethylene, zip-lock bags. The exterior of each bag was labeled in waterproof marker with the catalog number, and the information was duplicated in acid-free ink on an acid-free paper tag which was placed in the bag. Thereafter, the artifacts were packaged by catalog number in larger polyethylene, zip-lock bags, packaged by site, and stored in Hollinger acid-free boxes.

Finally, queries and artifact tables were generated for each site. A variety of queries were generated for sites as needed by the analysts in order to assist in site analysis. Artifact provenience tables including analysis data were generated for each site by excavation method. All data management, including creation of the catalogs, inventories, artifact tables, and queries was conducted using Microsoft Access 2010. Additional information regarding analytical terminology as it appears in the inventories is presented below.

HISTORIC ARTIFACT ANALYSES

Historic-period artifacts were separated and analyzed according to material type, function, and diagnostic attributes (e.g., form, style, and decoration). Where applicable, date ranges and references for material types and diagnostic attributes are recorded. Each entry has a check box to indicate if the artifact(s) has been thermally altered or has a maker's mark. Additionally, the end of each entry has space for pertinent and descriptive written comments.

Ceramics - Historic ceramics were first separated on the basis of ware type, including porcelains, stonewares, and earthenwares. Earthenwares were further divided into unrefined or coarse earthenwares (e.g., buff-bodied, terra cotta, and redware) and refined earthenwares (e.g., cream-colored, creamware, pearlware, whiteware, ironstone, semi-vitreous, white earthenware, yellow ware, and ball clay). The porcelain group was less sub-divided (e.g., bisque, Parian, and porcelain). Following the assignation of a ceramic ware or sub-type, each artifact was examined for a full range of attributes: portion, type, method

of manufacture, interior and exterior finished, decorative technique(s), decorative color(s), decorative pattern(s), and location of decoration. Unless otherwise noted, it was assumed that all ceramics, excluding brick, always had a clear glazed exterior and interior surface finish. As such, this attribute was recorded in the historic ceramic database.

Brick was initially analyzed as an independent artifact type but was included in the ceramic group. Artifact type (e.g., common, fire, paving, etc.) was first assigned. Then each artifact was examined for exterior finish, decoration, shape, functional attribute, portion, production/manufacture, and manufacture subtype.

Glass - Glass was first categorized by major functional group (i.e., container, tableware, closure, architectural/furnishing, lighting/electrical, personal/clothing, toy, and unidentified) followed by more specific subtypes (e.g., canning jar, tumbler, lid, lamp chimney, etc.). The glass artifacts were then examined according to method of manufacture, color, decoration (technique, type, and motif), and portion. If the artifact was a glass container, whether whole or a diagnostic fragment, another set of attributes was applied. This set included lip, bore, string rim, neck, shoulder, horizontal and vertical body shape, heel, resting point, base shape, and pontil mark.

Metal - All metal was first categorized by material type (e.g., iron, brass, lead, etc.). The metal, with the exception of nails, was separated into major functional groups: hardware, tools, architectural, wire, furniture, lighting, personal, clothing, kitchen, closure, arms, coin, animal related, vehicle related, and miscellaneous. The functional groups were then separated into specific artifact types (e.g., bolt, hinge, hook, etc.). Each artifact was then examined for method of manufacture, decoration, and portion.

Nails, although included with the metal group, were analyzed as an independent artifact group. After being categorized according to material type (e.g., iron, steel, brass, etc.) the next attribute recorded was method of manufacture: hand-wrought, cut, steel cut, UID cut, wire, and UID. Techno-chronological types as defined by Edwards and Wells (1993) were assigned, where applicable. These types were based on method of manufacture and manufacturing attributes. The nails were further subdivided by functional type (e.g., brad, roofing, framing, etc.) and portion. If the nail was whole, it was measured for total length in inches. Arbitrary length categories in 1.8 cm (0.5 in) increments begin at “<1” and end at “6 to <6.5”.

Miscellaneous - The miscellaneous artifacts were first separated by material (e.g., leather, plastic, cement, rubber, etc.). The material groups were then divided into artifact types (e.g., architectural/furnishing, miscellaneous, personal, tool, etc.). The artifact types were then divided into artifact subtypes (e.g., tarpaper, clothes pin, comb, handle, etc.). Each artifact was then examined according to method of manufacture, decoration, modification, and portion.

FAUNAL REMAINS

The faunal specimens were identified to taxon and element by reference to Brown and Gustafson (1979), and Gilbert (1990). Each specimen was weighed and examined for evidence of thermal alteration, butchering, cutting, and gnawing.

Curation of Project Materials

Cultural materials from this project not returned to the respective landowners upon their request, along with project field records, maps, photos, original illustrations, etc., will be submitted to the PHMC for permanent curation following their standards and guidelines. For artifact collections requested by the landowners, diagnostic materials will be electronically scanned or photographed and the artifacts delivered to the landowner(s) on behalf of SEA/URA.

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RESULTS

Individual Property Land-use Summaries

INTRODUCTION

Based on a review of archival information (e.g., historic mapping, Pittsburgh city directories, U.S. population census records, historic photos), brief land-use histories were developed for a total of 18 individual properties selected for study within the 9.8 ac (4.0 ha) Project Area (Table 2). Select Pittsburgh city directory and census data are presented for each property in Appendix IV. Also, a collection of newspaper articles from the Hill District's African American newspaper, the *Courier*, providing information on persons associated with the 18 researched properties, is found in Appendix V. From these historical data sources, general land-use patterns for the 18 selected properties were developed to provide a contextual basis for assisting in the interpretation and evaluation of the archaeological deposits recovered from the sites examined or identified during Phase II excavations.

Table 2: Historically Researched Lower Hill Properties¹

Resource Number	Address	Archaeological Site Number	Archaeologically Testing
1	Holy Trinity Roman Catholic Church & School, Centre Avenue & Fulton St.	36AL637	X
2	88 Crawford St.	36AL636	X
3	90 Crawford St.	36AL636	X
4	29 Fulton/ Fullerton St.	36AL635	X
5	31 Fulton/ Fullerton St.		X
6	1430 Bedford Ave.		
7	79 Franklin/ 1401 Epiphany St.		
8	83 Franklin/ 1405 Epiphany St.		
9	53 Fulton/ Fullerton St.		
10	55 Fulton/ Fullerton St.		
11	72 Fulton/ Fullerton St.		
12	76 Fulton/ Fullerton St.		
13	108 Fulton/ Fullerton St.		
14	194/ 1418 Webster Ave.		
15	196/ 1420 Webster Ave.		
16	209/ 1407 Wylie Ave.		
17	211-211½/ 1409, 1411 Wylie Ave.		
18	227/ 1509, 1511, 1513 Wylie Ave.		

Minimally, information from the 1880, 1900, 1920, and 1940 census data were collected for each property, although data from other census years also were examined for those properties where archaeological testing was conducted. Likewise, Pittsburgh city directory data, which were available for the Project Area since 1850, were selectively sampled and compared with available Hopkins and Sanborn maps (ca. 1872-1951) showing detailed views of streets and buildings. The city directories, which were generally published annually, provided information such as the names of heads of families, widows, and businesses, as well as resident occupations, and street addresses. From the census, additional information was collected, including information on race, birthplace, sex, age, and marital status, as well as occupation. Ownership information, when available, was recorded from available historic mapping.

ARCHAEOLOGICALLY TESTED PROPERTIES

(1) Holy Trinity Church and School Site (36AL637)

The Holy Trinity Church and School site is located within the current Allegheny County Tax Parcel 2-C-300. Historically, it was located in Aaron Hart's Plan of Lots, within Grove Hill Farm. These lots were recorded in Plan Book (PB) 1, page 68, dated March 29, 1834. The parcel was comprised of Lots 52-56, bounded on the west and south by Coal Hill Turnpike, on the east by Walnut Street (Crawford St.), and on the north by Lot 51. The parcel was sold to George Holdship in 1849 (Deed Book [DB] 59, Page 223) by Robert McElhinney.

During the mid-nineteenth century, German immigrants began moving the Hill District from their original settlement along the Allegheny River as the neighborhood was changing from residential to commercial and industrial. The new residents of what was then known as Riceville wished to have their own Catholic parish and began to pursue purchasing land for a church.

A lot measuring 128 x 132 ft. was acquired by the St. Philomena Parish in 1856 for \$7,000 from Eliza Ann Holdship, et al. The diocese established a separate parish called The German Parish of the Most Holy Trinity on the hill in September of 1856. Plans were drawn to construct a brick church measuring 44 x 88 ft. However, construction did not begin until the late spring of 1857. The parish dedicated the new church on November 22, 1857.

The original pastors of the parish were the Redemptorist Fathers, who left once the parish was established. A series of secular priests, defined as priests not affiliated with a particular religious order, ran the parish until 1865 when the Benedictine Fathers took over and ran the parish for the next five years. In 1870, the parish was again ministered by a series of secular priests until 1875, when the Carmelite Fathers took over. It was at this time that the monastery was constructed. The Carmelite Fathers ran the parish for the remainder of its existence.

The monastery building was constructed in 1875 for a cost of \$10,000, after the Carmelite Fathers took over the operation of the parish (Figure 39). The monastery was described as:

“a very practical building of three stories, roomy and well adapted. The corridors are in the front and most of the rooms face the school in the rear. This is rather strange, but evidently it was the intention of Father Kroll to have the rooms face the garden, which at that time was located where the school now stands. It has three offices, a large refectory and double library on the first floor. The second floor has a beautiful chapel with the regular choir stalls, bathroom, linen-room and four living rooms. The third floor has seven living rooms. Above this is a spacious attic. The kitchen, laundry and store rooms are in the basement (Dressel 1932:20).

The priests constructed a porch on the rear of the third floor of the monastery in June 1916. “The neighborhood having become so frightfully congested it was found necessary to have some place to find fresh air in the summer months (Dressel 1932:82).



Figure 39: West and front elevations of the monastery prior to ca. 1932 (Dressel 1932:50).

A school was planned for the parish from the beginning. The first three school buildings were replaced by a large brick structure in 1884, constructed at a cost of \$30,000 (Figure 40). It was described as “having eight classrooms, club rooms, a spacious hall and a stage on the third floor” (Dressel 1932:21). The school building was also used as a community recreation center where plays were performed and other activities were conducted to support the parish. Both the monastery and the school were constructed by Uhlman and Frieman, Contractors, who were assisted by members of the parish.

Initially, the school was staffed by lay teachers. The first teacher was Professor Henry Mitter who opened the first classes and became the first principal by October 1856. There were 14 teachers at this time, including Professor Mitter (Dressel 1932:21). The Sisters of Divine Providence took over two of the classes in 1877 and the remaining classes after the resignation of a Mr. Boegele, the last remaining lay teacher, who taught for 19 years and was also the organist and choir director. The Sisters of Divine Providence taught at the school for the remainder of its existence. At its peak, the enrollment at the school was 500 students. By 1932, enrollment had fallen to 125 students (Dressel 1932:59).



Figure 40: Holy Trinity School, west and front elevations, prior to ca. 1932 (Dressel 1932:53).

By 1889, the parish had grown considerably and plans were made to build a larger church at the corner of Crawford Street and Centre Avenue, on property acquired by the parish for \$43,000 in 1892 (Dressel 1932:23). The new church was constructed by L. Bems and Sons for a cost of \$48,600 (Figure 41). After the dedication of the new church in 1895, the old church was used as a hall. The dedication of a much larger church in the parish at the end of the nineteenth century proved to be ironic as it coincided with a change in the population of the Hill District, recorded in the Diamond Jubilee booklet for the parish:

Strange to say, but with the completion of this church the neighborhood began to change. Many of the parishioners, feeling that they had better opportunities, moved to Oakland and East Liberty. Many of them sold their property to Jews and, while we have no argument against the Jewish people and have many good friends among them, they were not of our faith and therefore of no use to a Catholic surrounding. They gradually became very strong in numbers and soon the parish noticed that the number of faithful was decreasing (Dressel 1932:23).

Population of Holy Trinity

As stated above, the parish was run by a succession of priests beginning with the Redemptorist Order until the Carmelite Fathers came to the parish in 1875. The number of priests living at the monastery varied from year to year (Appendix VI). An examination of city directories, beginning in 1860 generally only lists the name of the pastor. The Carmelite Fathers were listed in the directories beginning in 1876. Individual assistant pastors are recorded in the 1880 census, along with three nuns of the Sisters of Charity, who are recorded as two school teachers and a house keeper. The nuns are not listed in the directories



Figure 41: Laying the cornerstone of the new church in 1894 (Dressel 1932:48).

Note first church at left in photo. Also shown are the 88 and 90 Crawford Street properties at left indicated by the red arrows.

The addresses recorded in the censuses where the priests and nuns resided varied as well. In 1880 five priests are recorded as living at 2 Centre Avenue. The three Sisters of Charity in the above paragraph are recorded at 105 Fulton Avenue. Interestingly, the 1880 City Directory has no listing for this address. By 1900 an African-American family is recorded at this address in the census and a grocer is listed in the directory. In 1900 the priests are recorded at 1501 Centre Avenue. This corresponds with the monastery and remains constant through 1940. No nuns that appear to be associated with Holy Trinity are recorded in the 1920 census. The 1940 census records a Sister Superior and 11 nuns, all of whom are listed as teachers at Holy Trinity and members of the Sisters of Divine Providence.

Holy Trinity Church from 1932 to 1958

Not much is recorded for the Holy Trinity Church and School between its Diamond Jubilee in 1932 and its destruction in 1958. The Hill District continued to change and school enrollment and parish membership continued to fall. Shortly before the property was acquired by the URA, Holy Trinity parish was merged with St. Brigid parish. The 1895 Holy Trinity Church was used and the church name was changed to St. Brigid Church (Catholic Diocese of Pittsburgh 2013) (Figure 42). The parcel containing the church hall, monastery, and school were sold to the URA in a transaction dated April 16, 1958 (Deed Book 3688 page 636). The lot was then added to the scheduled destruction of the Lower Hill for the construction of the Civic Arena, as recorded in a Pittsburgh Sun-Telegraph article dated May 16, 1958:

The next wrecking contract will complete large scale demolition operations in the Lower Hill, according to Sidney Galvin, project engineer for URA. It will take out all those remaining business properties on Fullerton Street, including Trinity School and the Rhumba, and on the west side of Crawford, the eastern border of the redevelopment area.

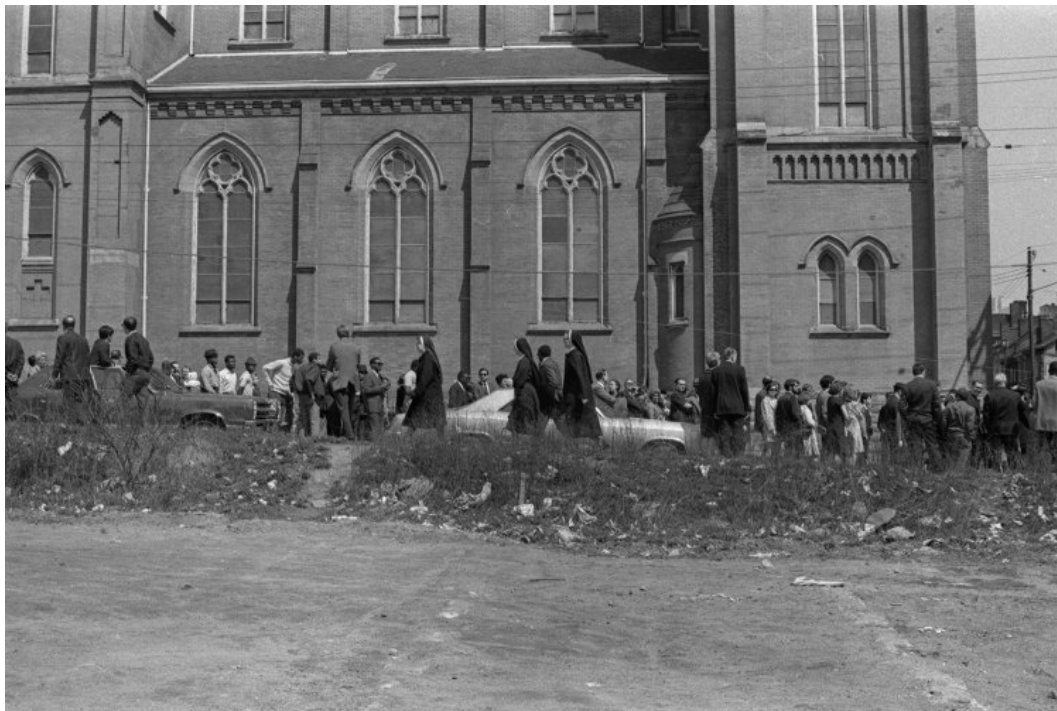


Figure 42: View of civil rights workers and demonstrators walking along Crawford Street on the Martin Luther King National Day of Mourning, April 7, 1968.

St. Benedict the Moor Catholic Church is visible (background) as are structural footprints of the first Holy Trinity Church (foreground). (Charles R. Martin Photograph Collection courtesy of Archives Service Center, University Library, University of Pittsburgh.)

(2) 88 Crawford Street and (3) 90 Crawford Street (36AL636)

The 88 - 90 Crawford Street site encompasses two adjoining residential properties located within the current Allegheny County Tax Parcel 2-C-300 and formerly designated as 88 and 90 Crawford Street. An examination of public records for the properties (i.e., deed books and city directories), as well as historic mapping, indicates that the two properties were first occupied by the early to middle 1850s.

The two lots were originally part of a large parcel of land designated as Farm #3 in the Proprietaries Manor Pittsburgh established in the late 18th century. From this parcel, Aaron Hart, laid out a plan of lots in 1834 known as Grove Hill, consisting of slightly over 10 acres (DB W2 Vol. 46:97; PB 1:68. The plan was revised in 1893 (PB 13:151). Following Hart's death in 1843, Grove Hill was sold to Scudder Hart for \$6,500 (DB 3rd Y, Vol. 72:94). There is no evidence that the property was developed during Scudder Hart's period of ownership, which continued only until 1846 when he conveyed 13 lots (nos. 37-49) to William Ward (Pittsburgh), Madison Bailey (Pittsburgh), and Jacob Hough (Westmoreland County) (DB 75:394). The lots were located along Coal Hill Turnpike (later renamed Fulton, then Fullerton Street) and Walnut Street (later renamed Crawford Street) between what was later to become Wylie and Centre avenues.

Information derived from Pittsburgh city directories suggest that the earliest occupancy at each property occurred by 1850 (90 Crawford) and 1855 (88 Crawford). In 1850, Albert Wallace was residing at 90 Crawford Street, with his occupation simply listed as "B. house" or boarding house. The federal census for that year (1850) lists him as a 30 year-old Irish immigrant residing with (presumably) his 56 year old mother, Margaret, the head of the household. Other residents included Albert's Irish-born wife Sarah and their two young children, as well as seven boarders consisting of 3 cabinet makers, 2 carpenters, 1 painter, and 1 tea peddler, all within their early twenties. The seven boarders comprised family and non-family members born in Pennsylvania, Ohio, Ireland, and England.

In 1855, Isaac Walker was listed in the city directory as living and/or working as a hatter at 88 Crawford Street. In the 1850 federal census, though not living on Crawford Street, he was listed as a 48 year old hatter born in England, as was his 44 year old wife, Leah, and his presumed sister-in-law, Alice Walker. Isaac Walker's children, ranging in age from 2 to 19 were all born in Pennsylvania, indicating that the family had immigrated to the United States at least by ca. 1831.

Since the initial city directory listings in the 1850s, the land-use history for 88 and 90 Crawford Street followed similar trajectories. Until ca. 1858-1860, both properties housed single, working-class individuals or families (i.e., iron workers, millwrights, and book keepers). Thereafter, the buildings on each property served as multi-family residences and/or businesses.

For several years between ca. 1858 and 1862, 90 Crawford Street was home to church ministers Rev. Cadwallader and, later, Rev. James Treacey (also Tracey) and his family. Following the departure of these ministerial residents by the early 1860s, both buildings became home to one or more widows, which was not an unusual occurrence, as husbands were lost during the Civil War and potential husbands were in shorter supply for years thereafter.

The 1872 Hopkins map of the city, the first to show individual buildings within the Hill District (Appendix IV; Hopkins 1872), indicated the presence of single buildings fronting onto 88 and 90 Crawford Street. The 88 Crawford Street lot was then owned or associated with a church of unknown affiliation, which may account for the presence of the ministers during the late 1850s and early 1860s. This church was later (in 1884) shown to be the location of the Mount Olivet Methodist Episcopal (M.E.) Church (Appendix V; Sanborn 1884), which was located directly behind the 88 and 90 Crawford Street buildings and separated from them by a narrow yard behind the apartments and a narrow alley. Still later,

in 1906, this adjoining church was obtained by the “Greek Community” and still later (1923) was known as the Peter Robinson Memorial Tabernacle of the Christian and Missionary Alliance (Appendix IV; Hopkins 1906, 1923).

In 1886, the lots were sold to John Weber of Pittsburgh, who continued operating the buildings as apartment dwellings. The 1886 Hopkins map of the city indicates the presence of single brick buildings on each of the two lots, which the 1893 Sanborn map depicts as three-story edifices (Hopkins 1886; Sanborn 1893). A historic photograph of the new Holy Trinity Church construction from 1894 shows the buildings fronting Crawford Street in the background (see Figure 41; Dressel 1932). The buildings at 88 and 90 Crawford Street are depicted as three-story red brick row houses with flat roofs. Each building appears to be two bays wide. Porches stood in the rear of the buildings by at least 1893 (Sanborn 1893), which overlooked a courtyard and a narrow alley in between Crawford and Fulton/Fullerton Streets.

A property survey conducted by the WPA on January 26, 1937 provided additional details about the buildings (WPA 1937). It described both as three-story, brick row type houses of fair workmanship that contained eight rooms and no bathrooms. Each house measured 9.4 x 5.2 m (31 x 17 ft) with an elevation of 11 m (36 ft), giving each a total volume of 554.6 m³ (19,584 ft³). A flat tar roof covered the buildings. The interiors consisted of plain plaster with white pine trim and white pine flooring. The basements are described as having cement and dirt floors. The survey indicated that toilets were located on the second floors and on the outside of the buildings. The second floor toilets were likely added when the buildings were connected to the city’s sewer system well after their construction. The outside toilets probably refer to outbuildings in the rear courtyard of the buildings.

From the earliest years of occupation, there was a high transient rate among residents of the two properties, with names changing every few years or less. During the first 20-30 years following the end of the Civil War, most residents could be classified as skilled and unskilled labor (e.g., livery hands, seamstresses, glass blowers and mould makers, teamsters, painters, cabinet makers, firemen, barbers, laborers, stencil cutters, carpenters, contractors, drivers, porters, milliners, shearmen, etc.). Also during this time, federal census and city directory data suggest that the most of the residents were of English, Irish, or German birth or ancestry. The building at 90 Crawford Street included two African American families in 1880-1882, which were among the many thousands who immigrated from the South between 1870 and 1900, ranking Pittsburgh’s Black community the sixth largest in the nation (Glascoe 1989:4). The federal census and city directories list the household heads of these two families as John W. Askins (ward constable) and Albert Jackson (laborer/fireman), both born in Virginia.

By the turn of the twentieth century the 88 and 90 Crawford Street apartments had transitioned to predominantly Jewish occupancy for the next few decades. The 1900-1920 federal census shows that most of residents of 88 and 90 Crawford were born in Eastern Europe (e.g., Poland, Romania, and Russia), and the 1920 census listed them as Yiddish speakers. The general occupations among the residents during these years included tailors, clerks, cigar makers, peddlers/hucksters, salesmen, tinnerns, janitors, laborers, bakers, machinists, bankers, teachers, bartenders, electricians, canvassing agents, as well as a manager of a “motion theater” (likely a movie theater). The 88 Crawford Street Jewish residents (the Amdurky, Abrams/Abramson, Lefkosky families) were less transient than many of the previous and future renters, having remained on the property for at least 15 years. By 1923, ownership of the two properties had transferred to Samuel Nathan, who did not reside there, but continued to operate the three-story rowhouses as multi-family dwellings (Appendix IV; Hopkins 1923).

By at least 1937, the apartment buildings had galvanized plumbing, were connected to the city’s sewer system, were heated by coal and gas stoves, and had electrical power. That year, however, their condition was described as very poor, with rental values of \$15.00 per month (WPA 1937). Sometime between ca. 1940 and 1948, the buildings at 88 and 90 Crawford Street, as well as several adjacent buildings to the

northwest were demolished and the properties remained as open, vacant lots (Appendix V; Sanborn 1951). In 1958, Crawford Street was widened and the remaining buildings along the west side of the street were demolished as part of the Lower Hill Redevelopment Project (*Pittsburgh Sun Telegraph* 1958). Based on a historic photograph (Figure 42), the lots on the west side of Crawford Street, including parcels 88 and 90, remained unpaved and exposed until at least 1968, and possibly later. The area was later paved with concrete to facilitate parking for city workers, visitors, and Civic Arena attendees.

(4) 29 Fulton/Fullerton Street (36AL635)

The 29 Fulton Street site encompasses a former residential property located within current Allegheny County Tax Parcel 2-C-300 and formerly designated as 29 Fulton Street, later (ca. 1910) renamed Fullerton Street. An examination of public records for the properties (i.e., deeds and city directories), as well as historic mapping, indicates that the property was first occupied by ca. 1850. The property was originally part of a large parcel of land described as Dr. Bedford's plan of lots (#1, 2, 3, 4, and 35) on Stone Quarry Hill, from which another plan of lots was laid out by James Brown in 1832 (DB 42:209). The Brown plan, consisting of 30 lots, was bordered by O'Hara Street (later renamed Fulton, then Fullerton, Street), Bedford's Street (later, Bedford Avenue), and Coal Lane (later renamed Webster Avenue; Figure 43; DB 42:209). Bisecting the plan were the north-south trending Brown Street (later renamed Crawford Street) and the east-west Whiteside Alley (later renamed Poplar Alley). Lot 8 in Dr. Bedford's plan became 29 Fulton Street.

Information derived from Pittsburgh city directories suggests that the earliest known occupancy of Lot 8 was in 1850. Owner, James Stuart (also Stewart), a Irish-born painter who owned \$3,000 worth of real estate, did not live in the vicinity of the property (U.S. Bureau of the Census 1850), but apparently rented it to Irish immigrant Hannah McKenna (age 50), who resided there with her son(?), Stephen McKenna (age 17), who was born in Pennsylvania. Also in residence was another Irish immigrant, Elizabeth Billingsly (age 44) and her daughter, Ann (age 10), who also was born in Pennsylvania. Of the four residents, only Stephen McKenna was listed in the 1850 federal census as having an occupation (laborer). Between the years of 1860 and 1889, city directories listed residents for 29 Fulton Street only in 1864-1866 and again in 1883. In the interim, beginning in 1863, the 12 Crawford Street address was the only one to appear in the directories, representing the rear half of Lot 8, which fronted onto Crawford Street. Further, in 1864-1865, residents are listed at both addresses. Hopkins' 1872 map of the city (Appendix IV; Hopkins 1872) shows the presence of a single frame building, later depicted as a residence, on Lot 8, located closer to Crawford Street than to Fulton Street. Possibly, there was confusion with assigning an address because the frame building was set back from the street, nearer the center of the lot.

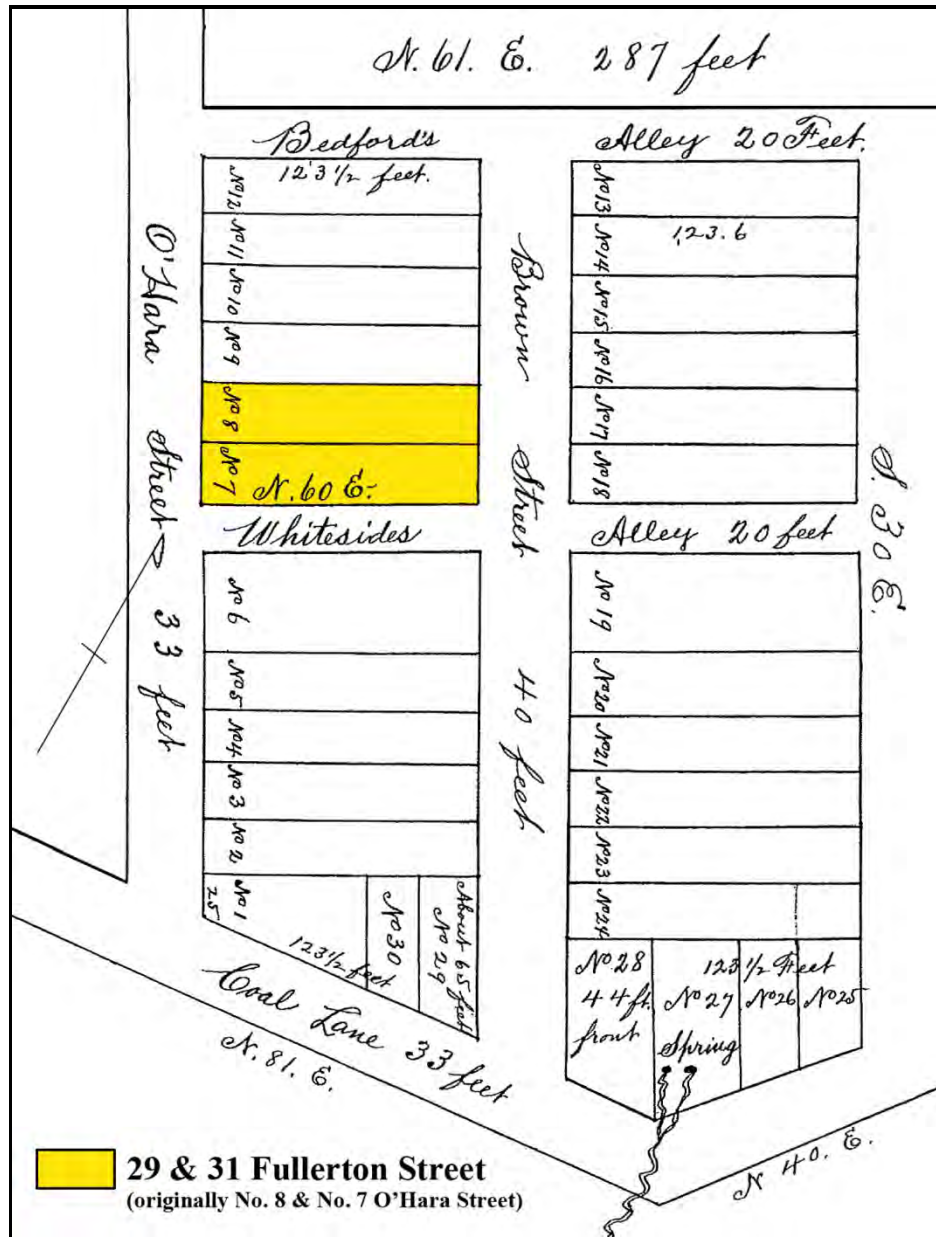


Figure 43: Plan of lots laid out by James Brown in 1832 (DB 42:209) showing the placement of 29 and 31 Fulton/Fullerton Street (in yellow).

Alternatively, a second building may have been constructed on the Fulton Street side of Lot 8 by ca. 1850, disappearing by ca. 1867. However, there is no available historic mapping or other information to support the latter explanation. Therefore, it seems more plausible that Lot 8 contained only one building – a frame residence – from at least ca. 1850 to 1889-1890, and that building was set back from Crawford Street. In 1863, the 12 Crawford Street address was listed in the city directory as the residence of Robert S. Campbell. The 1860 federal census describes him as a 27 year old mulatto barber, born in Maryland. The household also included his mulatto wife, Charlotte (age 25), their three small children, and a mulatto servant, L. Powell (age 14). Interestingly, in the 1864-1865 city directory, Campbell was listed as residing at 12 Crawford Street while attorney James M. Gallagher, was listed as residing at 29 Fulton Street. Similarly, in 1866, while Robert Campbell was listed at the 12 Crawford Street address, two others – glassblower Frederick Young and carpenter James Farley were listed as residing at the 29 Fulton Street address.

In 1865, Robert Campbell purchased the eastern portion of Lot 8 for \$550 (DB 187:403). In 1870, the Campbells also had a boarder, James Farley, whose occupation was listed as a watchman. In another year, 1873, Ralph Campbell, also a barber and a possible family member, also was listed as a resident at 12 Crawford Street. Robert Campbell died ca. 1873-1874, and his family moved out their Crawford Street home around 1880. For at least several years afterward, the building served as a multi-family residence for working class individuals and families.

Among the working class residents who lived at 12 Crawford Street after the Campbell's departure was teamster A. J. Simmons, who was of Irish ancestry. In 1880, the federal census listed him as residing at 12 Crawford Street with his wife Mary J. Simmons, and their two children, all of whom were born in Pennsylvania. Between 1880 and 1885, as few as two and as many as six workers (and likely their families) were living on the property in any given year. They consisted mainly of laborers, as well as one waiter, all with Anglo/Irish surnames (i.e., Brown, Winston, Thornton, Hyde, Robinson Henson, and Young).

In 1885, the entire 120 ft-long Lot 8 was purchased by John Flynn (also Flinn), who constructed a large residential building fronting onto Fulton Street ca. 1889-90. The 1893 Sanborn map (Appendix V; Sanborn 1893) shows the structure as a large, three-story dwelling, with a walkway/passageway between it and the neighboring property to the south (31 Fulton Street). The two-story frame dwelling shown on the map behind (east of) the three-story edifice is labeled as 29½ Fulton Street. This frame structure may be the same one that was occupied intermittently since at least 1850 and referred to in the city directories either as 12 Crawford Street, 29 Fulton Street, or both during the years between 1850 and 1889. About the same time that the three-story residence was built on Fulton Street, John Flynn constructed two other (two-story) brick dwellings east of the frame building on the same lot, fronting directly onto Crawford Street. On the 1893 Sanborn map, these buildings were labeled as 12 and 12½ Crawford Street. Because the archaeological investigations focused on the western half of Lot 8, between the early two-story frame residence and Fulton Street, the land-use discussion of the property for the years since 1889 hereafter focus only on the 29 Fulton Street address.

The 1890 city directory indicated that owner John Flynn was residing on the 12 Crawford Street portion of his property, as was Robert Close, who was recorded as selling cigars in the large, newly constructed, brick building at 29 Fulton Street. Unfortunately, because most of the federal census records for 1890 were lost, additional information on these residents is not available for that year. However, the 1900 census showed day laborer John Flynn (age 50) to be an Irish immigrant, as was his wife Mary (age 51). Their children, ages 7-23, were all born in Pennsylvania. The family was listed as residing at the 29 Fulton Street address. Other residents included bookkeeper Charles Krauss, from Ohio, and his German-born wife Tillie, as well as two native-born female tenants (no occupation) who were born in Illinois and Ohio; neither had listed occupations.

The city directories show that 29 Fulton Street continued to function as a multi-family dwelling throughout most of its history. It also continued to serve as the home of owner John Flynn until his death ca. 1904-1905 and his family, into 1908. The tenants during those years all were Euro-Americans primarily of English/Irish and to a lesser extent, German, ancestry. All were working class individuals such as laborers, carpenters, teamsters, salesmen drivers, waiters, butchers, clerks, secretaries, and plumbers, as well as widows. John Flynn also was listed as a grocer between the years 1900 and 1902.

Ca. 1908, the Flynn family moved and probably sold the property, although no deed reference was found. Between 1910 and 1912, the Benevolent Order of Elks was listed in the city directories as the sole tenant. However, the 1910 census lists three single African Americans unskilled workers living at that address. Around the same time, ca. 1910, the name of Fulton Street was changed to Fullerton Street. Although the Elks continued to use the building for another year, other tenants were listed as well beginning in 1913.

The 1923 Hopkins map showed the owner that year as C. V. Branch. An article in Pittsburgh's African American newspaper, the *Courier*, that year suggests that the Elks were still using 29 Fullerton Street address in 1923, although they were not listed again in the city directories after 1913. The greatest number of listed tenants occurred in 1929 and 1930, with 10 and 11 individuals/families, respectively for those years. Several Italian immigrants were listed among the residents for the first time in 1913 and again in 1914 and worked either as laborers or in the junk business. Most of the tenants from ca. 1914-1929 were likely African Americans, although there are no listings for the property in the 1910 and 1920 federal census to confirm this. Most of the tenants during this period held jobs as laborers, porters, and domestics, although other occupations – such as decorator, mechanic, clerk, and “billiards” were also represented. Federal census data from 1930 and 1940 reveal that all of the residents of 29 Fullerton Street were African Americans who relocated from Southern states. Only a relative few were documented as having been born in the North (i.e., Pennsylvania and Ohio). Most of the inhabitants held labor or service jobs such as railroad porters, construction and sewer workers, iron industry workers, servants, etc.

The building at the 29 Fulton Street address consisted of a detached, three-story red brick row house with a rear ell. A historic photograph from 1937 in which the building is in partial view shows a three-bay wide façade with a front-gabled roof (Figure 44). The front door was set four steps above street level on the right side of the building. There was also a basement entrance in the front, which is in better view in a second historic photograph from 1930 (Figure 45). A basement entrance was also present in the southern side of the building as depicted in the 1893 and 1905 Sanborn maps. However, the entrance does not appear in later maps (Appendix V; Sanborn 1927, 1951). The 1930 photograph also depicts a coursed sandstone block foundation that extended between three and four courses above street surface.

A property survey conducted by the WPA on January 26, 1937 provided additional details about the building (WPA 1937). It described it as a three-story single house, solid brick construction of fair workmanship that contained 11 rooms and one bathroom. The front of the building measured 10.7 x 6.0 m (35 x 19.6 ft) while the rear wing measured 5.5 x 4.9 m (18 x 16 ft). The building had an elevation an elevation of 10.7 m (35 ft), including the 2.1 m (7 ft) deep basement. In total, the building had a volume of 980.2 cubic meters (34,615 cubic feet). A slate “Mansard” roof covered the front of the building and a shed roof covered the rear wing. The interior consisted of plain plaster with yellow pine trim and yellow pine flooring. The basement is described as having a concrete floor.

By at least 1937, the apartment building had galvanized plumbing, was connected to the city's sewer system, was heated by a coal and gas stove, and had electrical power. That year, however, the condition of the building was described as poor with a rental value of \$30.00 per month (WPA 1937). The building at 29 Fullerton remained standing and in use until 1958 when it was acquired by the Pittsburgh Urban Redevelopment Authority and demolished as part of the Lower Hill Redevelopment Project.



Figure 44: View in 1937 of Fullerton Street road repaving, facing southeast from Bedford Avenue intersection. The façade of the 29 Fullerton Street residence is indicated by a red arrow at center left.

Photo courtesy of Pittsburgh City Photographers Collection (www.retrographer.org).

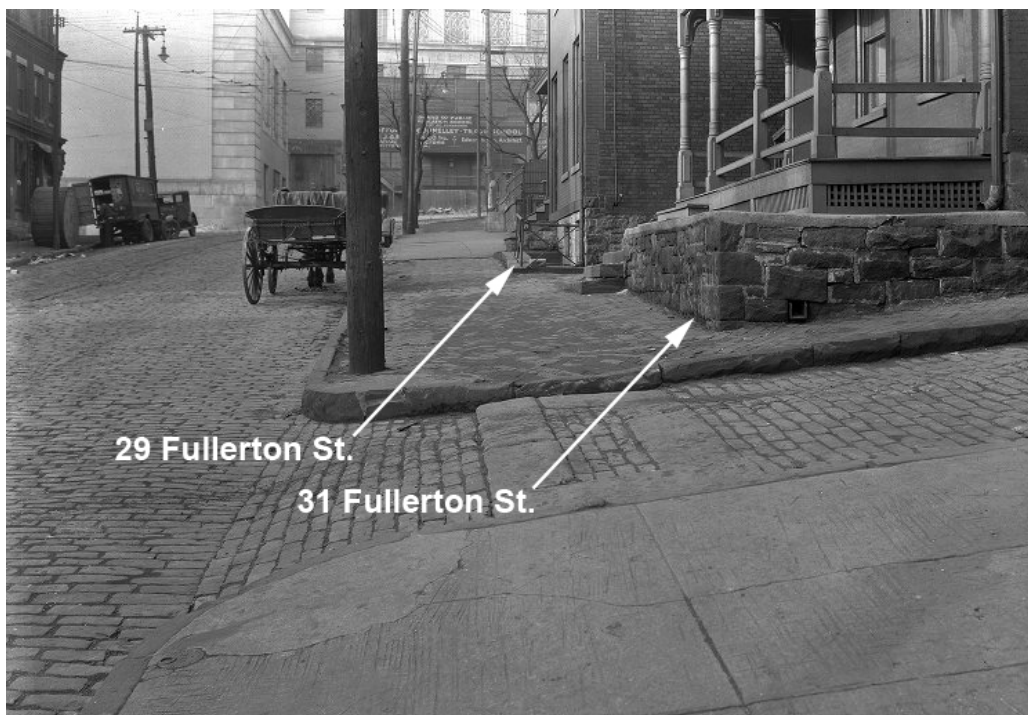


Figure 45: 1930 view along Fullerton Street, facing north from near Gilmore Street. Portions of the 29 and 31 Fullerton Street residences are visible in the upper right quadrant.

Photo courtesy of Pittsburgh City Photographers Collection (www.retrographer.org).

(5) 31 Fulton/Fullerton Street

The 31 Fulton Street site encompasses a former residential property located within current Allegheny County Tax Parcel 2-C-300 and formerly designated as 31 Fulton Street; later (ca. 1910) renamed Fullerton Street. An examination of public records for the properties (i.e., deeds and city directories), as well as historic mapping, indicates that the property was first occupied ca. 1856.

The property was originally part of a large parcel of land described as Dr. Bedford's plan of lots (#1, 2, 3, 4, and 35) on Stone Quarry Hill, from which another plan of lots was laid out by James Brown in 1832 (DB 42:209). The Brown plan, consisting of 30 lots, was bordered by O'Hara Street (later renamed Fulton, then Fullerton, Street), Bedford's Street (later, Bedford Avenue), and Coal Lane (later renamed Webster Avenue; see Figure 43). Bisecting the plan were the north-south trending Brown Street (later renamed Crawford Street) and the east-west Whiteside Alley (later renamed Poplar Alley). Lot 7 in Dr. Bedford's plan became 31 Fulton Street.

The 1856 city directory listed the property solely as the residence of Henry McGeary of the unspecified firm of Marshall & McGeary. Thereafter for the next several decades the property served as the residence largely to individuals and families of professional/technical/clerical wage earners, comprising fire marshals and firemen, attorneys, clerks, printers, chemists, telephone operators, grocers, etc., intermixed with a few lower income workers such as laborers and waiters. Through the 1880s, most of the residents possessed names indicating English, Irish ancestry. Also, from the combined historic mapping and the city directories, none of the owners appeared to have been residents of the building throughout its history.

Set back slightly back from Fulton Street, the building first depicted on historic maps (Appendix IV; Hopkins 1872) is shown on a later (1882) Hopkins map as a frame building and on 1890 Hopkins and 1893 Sanborn maps (Appendices IV and V) as a three-story brick dwelling. This suggests a possible replacement of the earlier frame dwelling with one of brick construction between ca. 1882 and 1889. This brick edifice is characterized as a detached, three-story building with a rear ell.

No census data were found for residents of 31 Fulton Street prior to 1900. In that year, preacher Albert Acken, originally from New Jersey, and his family of six were residents there, as was boarder Harry O. Elder, a chemist from Ohio. Census data for 1910 show a transition to all African American residents. That year, an unmarried resident, Mary King, was housekeeper for a boarding house on the property, the address of which was changed that year to 31 Fullerton Street. Over the next few years, the building served as the headquarters for the International Hod Carriers and Building Laborers Union, though it also served as a multi-family residence for various semi-skilled and unskilled African American workers such as waiters, porters, maids, laborers, etc., a pattern of use continued at least through the 1920s. No listings could be found in the 1930 city directory or census, suggesting a possible vacancy attributable to property conveyance.

A historic photograph from 1930 in which the building is in partial view shows a three-bay wide façade with a wooden front porch (see Figure 45). The porch sat on a masonry platform six steps above street level. The rear wing of the building abutted a set of row houses to the east on Gilmore Street (Hopkins 1910; Sanborn 1893). Window openings existed on all three floors in the rear of the building and the side of the building fronting Gilmore Street (Sanborn 1927).

A property survey conducted by the WPA on January 26, 1937 provided additional details about the building (WPA 1937). It described it as a three-story single house, solid brick construction of fair workmanship that contained six rooms and one bathroom. The front of the building measured 7.9 x 7.2 m (26 x 23.6 ft) while the rear wing measured 3.5 x 1.8 m (11.6 x 6 ft). The building had an elevation of 11.9 m (39 ft), including the 2.1 m (7 ft)-deep basement. In total, the building had a volume of 694.9 m³

(24,529 ft³). A gable front tin roof covered the front of the building and a flat tin roof covered the rear wing. The 1.8 m (6 ft)-deep front open porch spanned the entire width of the building. The interior consisted of plain plaster with yellow pine trim and yellow pine flooring. The basement is described as having a concrete floor. By at least 1937, the apartment building had galvanized plumbing, was connected to the city's sewer system, was heated by a coal and gas stove, and had electrical power. That year, the condition of the building was described as fair with a rental value of \$20.00 per month (WPA 1937).

The 1940 census shows an integration of both White and African American tenants at 31 Fullerton, all of whom worked in semi-skilled and unskilled jobs. The building remained in use as a multifamily residence until at least 1953. By 1956 it was listed as a vacant property, suggesting that the building may already have been demolished prior to commencement of the Lower Hill Redevelopment Project.

PROPERTIES NOT ARCHAEOLOGICALLY TESTED

(6) 1430 Bedford Avenue

A review of the Pittsburgh city directories and historic mapping (Hopkins 1872, 1882, 1889, 1900; Sanborn 1884, 1893; 1905) suggest that 1430 Bedford Avenue was undeveloped land until ca. 1905 when a large three-story brick building was constructed by new owner Joseph Calabrese. The 1910 census lists him as an Italian immigrant, who worked as a druggist and proprietor of his own retail drugstore on Webster Avenue until ca. 1914. During the lattermost year of his proprietorship, Joseph's cousin Thomas Calabrese also worked there as a druggist.

At the time of the 1920 census, 10 African-Americans, representing as many as nine families, were documented as living in the three-story building. Nearly all had migrated from the South or had parents who were born in the South. All of the (nine) individuals listed as having jobs were semi-skilled or unskilled workers (i.e., mill laborers, fish cleaners, hotel chambermaids, hod carriers, porters, lunch counter keepers).

In 1921, the property was acquired by George W. Benson, an African-American, whose occupation in 1922 was listed as a porter. Under Benson's ownership, the building was known as the Hotel Benson, where the Benson family made their residence and ran the hotel for 20+ years. The 1940 census shows that while the Benson family was African-American, all of the hotel's 100 listed tenants were White, representing as many as 21 families, in addition to the Bensons. The residents represented a mix of white collar professional and clerical workers as well as blue-collar laborers and service industry workers. Among those in the professional/clerical category were a medical doctor, professional baseball player (M. J. Haslin, who played for the New York Giants in 1933-1938), newspaper editor of his own newspaper, a teacher at a private school, secretary, clerk, stenographer, and a treasurer of a machine shop. Craftsman/skilled workers included a jeweler, and the remainder consisted of WPA laborers, truckmen, maids, and mechanics. Also living in the hotel was a fortune teller (palmist).

Though unconfirmed, George W. Benson possibly was related to Grammy award winning jazz musician George Benson, who was born in the Hill District in 1943. A *Courier* newspaper article dated December 12, 1953 reports that "George Benson, former *Courier* newspaper boy and son of Thomas Benson of 1430 Bedford Avenue, signed a contract to make a record for Victor's new label "X" in the next couple of week." While Thomas Benson is not listed at this address in any of the city directories or the 1940 census, it is likely he was related to the owners. In the "Marriage Applications" column of the *Courier* newspaper, dated January 23, 1954, Thomas Benson and Erma Collier, both of 1430 Bedford Avenue applied for a marriage license.

According to the city directories, the hotel remained in business minimally through the early 1950s, and possibly later and still served as the Benson family residence until at least 1956. Within the next few years, the building was demolished as part of the Lower Hill Redevelopment Project.

(7) 79 Franklin/1401 Franklin/1401 Epiphany Street

Pittsburgh city directories indicate that 79 Franklin (later 1401 Franklin/1401 Epiphany Street) was first occupied by ca. 1858. These early tenants consisted of a coal digger, carpenter, and tinner. The brick building, first shown on the Hopkins 1872 map (Appendix IV; Hopkins 1872) was owned and occupied by Irish immigrant Henry Mellon of the firm Mellon & Burke, who was the carpenter listed in the 1858 city directory. After his death ca. 1875, the Mellons continued living at the address and renting other units in the three-story building that they inherited (Appendices IV and V: Sanborn 1884; Hopkins 1889). During that time, the renters comprised a mix of skilled and unskilled laborers, clerical workers, and proprietors (e.g., lamp washer, unspecified laborers, clerks, railroaders, porters, cooks, policemen, peddlers, waiters, grocers, firemen, puddlers) as well as widows. The Mellons listed their occupations as cigar makers, bartenders, and plumbers. Although the 1880 city directory listed Mellons among the property's occupants, they were not listed in the census for the same year. Instead, only tailor John. C. Wagner, of Pennsylvania, and his English born wife (?) were the listed occupants.

Sometime between 1900 and 1903, the Mellons conveyed the property to S. Fauberg. Around the same time (by 1900), the address was changed from 79 to 1401 Franklin Street. The 1900 census shows that all of the 12 tenants in the building that year were African American, nearly all of whom emigrated from the South (Virginia) or had parents who were born in the South. The early years of the twentieth century, however, saw an influx of Jewish tenants mainly from Eastern Europe, as well as some Middle Eastern residents. Most had occupations as bakers, salesmen, janitors, tailors, and steel mill laborers, while some others ran small businesses. Around 1914, the address was again changed - to 1401 Epiphany Street.

By 1940, the composition of the tenants on the property had changed again, as the Jewish and Middle Eastern residents were slowly displaced by African Americans. By 1940, all of the residents at 1401 Epiphany were listed in the census as Black, most emigrating from the South. The three-story apartment building remained standing and in use at least until the mid to late-1950s when the building was demolished as part of the Lower Hill Redevelopment Project.

One of the property's more noteworthy residents, Roosevelt Richardson, was the subject of an article in Pittsburgh's Black weekly newspaper, the *Courier*, in 1945, announcing his promotion to Captain within the 332nd Fighter Group of the celebrated U.S. Army Air Corps known as the Tuskegee Airmen (aka, Red Tails). The Tuskegee Airmen were the first African-American aviators in the armed forces, having formed in 1941. Richardson was assigned to the fighter group in 1942. Although born to a low income family, he graduated from the University of Pittsburgh and immediately entered into New York University Meteorological School (White 2006:25) as an aviation cadet before being assigned to military action in Europe. After the War, Richardson returned to Pittsburgh, where he became one of city's first African American physicians. He died in 1995 after 35 years of general family practice in the Homewood and East Liberty section Pittsburgh (*Pittsburgh Post-Gazette* May 5, 1995).

(8) 83 Franklin/1405 Epiphany Street

The earliest available city directory (1850) shows three residents living at 83 Franklin (later 1405 Epiphany) Street, consisting of two widows and a porter. Thereafter, the building on the property was continuously used throughout its history as a multifamily dwelling, generally housing a variety of skilled and unskilled workers and occasional non-working widows.

The 1872 Hopkins map shows a structure on the lot, owned by a P. Burke (Appendix IV; Hopkins 1872). Later maps (Hopkins 1882, 1889; Appendix V: Sanborn 1884) show a three-story brick structure with two-story additions. The 1880 census lists all of the tenants as White Euro-Americans, all born in the United States (Pennsylvania, Ohio, New York, and Virginia). Occupants listed in the city directories and census during the 1850s through 1880s consisted primarily of skilled laborers and clerical workers (pilots, rivermen, postal clerks, salesmen, and bookkeepers) as well as a (grocery store) proprietor.

Ca. 1896, the street name and address was changed to 1405 Epiphany Street. Beginning in the 1890s, the building became more heavily populated by lower skilled workers, such as laborers, janitors, and launderers, although more skilled and clerical workers were still counted among the tenants, though in proportionally fewer numbers. For several years between 1900 and 1910, Jewish owner/resident Samuel Blitzstein was listed in the city directory as selling meats. Also living there briefly was Jewish peddler, Abraham Levin. However, census records show a general transition from predominantly White to African American tenants beginning with the 1900 census and continuing through the most recent available census, 1940. The majority of the African American tenants in the 1920 and 1940 census had relocated from Southern states (e.g., Maryland, Washington D.C., and Virginia).

The apartment building at 1405 Epiphany Street remained in use at least through 1957, when one of the female residents was arrested for keeping an “assignment house,” or bordello, at a nearby location (Appendix VII; *Pittsburgh Courier* 1957). The building was demolished within the next few years as part of the Lower Hill Redevelopment Project.

(9) 53 Fulton/Fullerton Street

Pittsburgh city directories indicate that 53 Fulton (later Fullerton) Street was first occupied by ca. 1850. The occupants listed for that year in the city directory were described as a porter and laborer. From 1850 to ca. 1913, the residents comprised mainly working class individuals (skilled laborers/craftsmen to unskilled laborers) such as shoemakers, cabinet makers, upholsters, cooks glassblowers, drivers, porters, waiters, policemen, dressmakers, barbers, etc.) as well as widows. In addition, a “tailoress” (1856) and a musician were among the less common job listings. Several early African American residents, documented during the 1860s to 1870, were listed as laborers, barbers, and widows.

The 1880 census listed a single resident for that year - widow Rosanna Keefe - a native of Ireland. She kept house for herself and eight family members, two of whom worked as laborers; the rest either too young for school or were also listed as “keeping house” or “assists keeping house.” The 1884 Sanborn map shows a two- and two and a half-story building, with a two-story semi-detached building on the lot (Appendix V: Sanborn 1884). The 1893 Sanborn map records two multi-unit buildings on the lot, ranging from two to four stories (Appendix V; Sanborn 1893).

The 1900 census indicates that, with the exception of three members of the Rosanna Keefe (Keef) family, all of the 24 other residents were African Americans. Half of the African Americans were born in Pennsylvania and other half relocated from the more southern states of Maryland, Texas, Virginia, and Washington D.C.

While functioning as a multi-family residence, the property may have also housed a retail drugstore in 1905. Around 1914, the Burke’s Theater opened at 53 Fullerton Street. In 1927, the property also was listed in the city directory as Royal Garden Hall. By that time, the original two-story brick building on the lot had had been replaced with a large, two-story, steel framed, brick structure that spanned both the 53 and adjoining 55 Fullerton Street addresses (Appendix V; Sanborn 1927). The map also shows the location of the movie theater on the first floor and a “hall” on the second floor. In 1930, the indoor

Egyptian Gardens Golf Course opened next to the theater on the same property. Burke's Theater ran movies through the mid-1950s and became known as the Rhumba Theater around 1940.

In the basement of the theater, the Ritz Café opened around 1932, offering dining, dancing, and "special novelty entertainment" (Appendix VII; Pittsburgh Courier 1932, 1941, 1945a, 1945b). In 1946, the café was succeeded by the Bambola Club, a private, after-hours social club for African Americans members. It became one of the Hill District's most popular clubs. Among the more notable performers were Gypsy Rose Lee, female impersonator Gilda Gray, singer Bea Henderson, blues singers Jo Jo Thompson and Andrew Tibbs, and dancers Billy and Cricket. Floor shows began at 2:00 A.M., after the regular bars closed. The Bambola was one of many clubs and other night spots that lined the streets of the Lower Hill District, particularly Wylie and Centre Avenues and Fullerton Street, making Pittsburgh a major center for jazz musicians during the early to middle decades of the twentieth century. The Rhumba Theater and Bambola Club closed ca. 1956 and shortly afterward the building was demolished as part of the Lower Hill Redevelopment Project.

(10) 55 Fulton/Fullerton Street

Pittsburgh city directories indicate that 53 Fulton (later Fullerton) Street was first occupied by ca. 1850. The two occupants listed for that year in the city directory were described as a porter and shop keeper. Until after the close of the Civil War, no more than three individuals or families were listed for this property in the city directory. In addition to the porter and shop keeper noted above, resident occupations consisted variably of an engineer, carter, painter, soldier, and laborer.

One of the earlier tenants, Richard Keefe, who was first listed in the directory as a carter (1856), and later as a laborer (1865-1866), and still later as a merchant grocer (1872) appears to have owned the property, and probably operated his grocery there at least briefly in the early 1870s. He may have been a relative to John Keefe who owned the neighboring building at 53 Fulton/Fullerton Street (described above) around the same time.

Between 1875 and 1880, Bernard Tague, an Irish American, had opened a saloon on the front side of the 55 Fulton Street building, shown on an 1884 and 1889 Hopkins map as a three-story brick building consisting of four adjoining units. The 1880 census shows that Tague and his wife Annie shared the apartment building with several other tenants and their families, which consisted of an Irish American laborer and his family, and five African Americans, two of whom worked respectively as a waiter and domestic servant. Bernard Tague's premature death ca. 1881-1882 left his young widow, Annie, in charge of the saloon for several years before converting it to a retail grocery store, by 1889.

The grocery store was apparently a short-lived venture, as it did not appear in the city directory after 1890. The 1900 census shows a continuation use of the property an integrated apartment building, with eight African American residents and two Euro Americans tenants. The African Americans held jobs that included washing/ironing, scaffold building, chambermaid, and street cleaner; the Euro-American worked as a boat fireman. Around the same year, Thomas Gant (also listed as Gent) opened a barber shop, which he operated for at least several years until ca. 1906.

Between ca. 1910-1914 there were no city directory listings for the property. Beginning in 1915 a billiards parlor operated by the Williams Brothers was the sole tenant. In the early 1920s, the property was managed by Thomas Burke, as part of Burke's Theater (which showed "moving pictures" next door at 53 Fulton/Fullerton Street. Between 1925 and 1931, the city directory variably listed the building as either the billiards parlor of Mose (also listed as Moses) Romeah or Alex M. Williams, the Monarch Bowling and Billiard Academy, or Burke's Theater. The 1927 Sanborn map shows that the original three-story brick building on the lot had had been replaced with a large, two-story, steel framed, brick

structure that spanned both the 55 and adjoining 53 Fullerton Street addresses (Appendix V; Sanborn 1927). The map also shows the location of the movie theater on the first floor and a “hall” on the second floor. Burke’s Theater ran movies through the mid-1950 and became known as the Rhumba Theater around 1940. Below the theater was the Ritz Café, which opened by 1932 and was succeeded by the Bambola Club in 1946 (see **53 Fulton/Fullerton Street, above**). No listings appeared in the 1940 directory for the address and by 1951, the property was shown on Sanborn mapping as vacant (Appendix V; Sanborn 1951). However, the Rhumba Theater and Bambola Club continued to operate into the 1950s (as per data derived from the city directories and Harper 2011). It is likely that the buildings on both 53 and 55 Fullerton were simply listed under the neighboring 53 Fullerton address during those years. The Rhumba Theater and Bambola Club closed ca. 1956 and shortly thereafter were demolished as part of the Lower Hill Redevelopment Project.

(11) 72 Fulton/Fullerton Street

Pittsburgh city directories indicate that 72 Fulton (later Fullerton) Street, which was located at the corner of Fulton and Pasture Street/Alley, was first occupied by 1861, with resident Charles Eisell listed as a saloon keeper. Ca. 1868, a bakery was established at that location. The 1872 Hopkins map, however, shows no structures fronting onto Fulton Street at that location, although a brick building is set back from the street toward the rear of the lot; the owner is listed as J. Karr. A later (1889) Hopkins map (Appendix IV; Hopkins 1889) shows a large brick structure owned by baker T. Nicholds (also listed as Thomas Nicholas); the building was later confirmed through Sanborn maps to be a three-story edifice. For some years during the 1870s through ca. 1906 the Nicholas family operated a bakery in the building probably on the first floor and resided there as well, renting out other apartments in the building. The 1905 Sanborn map shows that an oven was located in the basement, probably for use in the bakery. In the 1880 census, owner Thomas Nicholas was listed as a 24-year-old immigrant baker from Germany, who was assisted by his brother (?) Andrew Nicholas. By 1899, Thomas’ wife Catherine was working as a confectioner, while son William assumed the role of baker. Thomas’ name was not included in the 1900 census, suggesting that he may have been deceased.

By 1906, the property had been sold to G. Trau, and the bakery closed within the year. In its place a dining room opened on the property, replaced within several years by a pool hall (ca. 1914) and later a confectionary (1920), drugstore (1925), and possibly a restaurant (1930). Also during those years, ownership of the building changed hands several times, but none of the owners were listed among the inhabitants. The 1920s census revealed the presence of 12 residents, all of whom were African American; over half had migrated from the South. Five of the eight job-holding residents were semi- or unskilled workers, while two other tenants were listed as proprietors of a pool room and a confectioner, respectively.

Between 1931 and 1956, a barber shop was operated in the building, as well as a billiards room in the 1930s and 1940s. As in the 1920 census, all of the recorded tenants in 1940 were African American. In the mid- to late-1950s, the building was demolished as part of the Lower Hill Redevelopment Project.

(12) 76 Fulton/Fullerton Street

Pittsburgh city directories indicate that 76 Fulton (later Fullerton) Street was first occupied by ca. 1850. The single occupant listed for that year in the city directory was described as a stone cutter. Several years later, African American brothers (?) Gabriel and Augustus Briscoe, both listed as barbers, were living at 76 Fulton Street, although their place of business was located elsewhere in the city. During the next 30 or so years, a variety of mainly skilled workers/craftsmen (e.g., jeweler, watchmaker, plasterer, turnkey, glass mixer) as well as a widow, laborer and a salesman resided at 76 Fulton, with no more than one, two, or three tenants listed at any given time. The building housing these earlier tenants apparently served as a

rental property, as the owner (H. Carson) shown on the 1872 Hopkins map (Appendix IV; Hopkins 1872) was not listed among the residents.

In 1880, “turnkey” (policeman) Dorsey C. Jones, was the only resident of the property listed in the city directory. However, the census for that year listed eight residents, including five members of a Welsh family, the Pennsylvania-born Jones and his wife, and a German-born boarder. Their occupations included a laborer, dressmaker, clerk, and policeman; none of the renters were African American.

The 1884 Sanborn map (Appendix V; Sanborn 1884) shows a vacant lot at this location, denoting the destruction of the earlier brick building shown on the 1872 Hopkins map. However, the city directory for the same year (1884) listed two occupants at the address – a teamster and a slater. Possibly they lived in the earlier building before it was destroyed or in the later building that may have been constructed after the Sanborn map was drawn. By the mid to late 1880s, ownership of the property transferred to Welsh immigrant Ellis Williams, a laborer/slater/roofer who lived in the building since the early to mid-1870s. The now three-story brick building continued as a multi-family residence used mainly by skilled labor/craftsmen as well as a relative few semi-skilled and unskilled workers and widows. The 1890 city directory shows that five of the six residents that year, including owner Ellis Williams, worked as slaters.

By 1900, the apartment building housed a mix of Euro-American (Welsh and Pennsylvania-born) and African American residents. Ellis Williams, now an elderly landlord, and his wife, Jane, managed the apartment building filled largely with semi-skilled and unskilled workers (e.g., cooks porter, waitresses, valets, nightwatchmen) as well as an attorney and his wife. Also in 1900, the building was used briefly by the Knights of Pythias, an international, non-sectarian fraternal order, established in 1864 and the first fraternal order to be chartered by an Act of Congress (www.pythias.org). After 1904, the Williams name disappeared from the city directories.

In 1905, Jentons, Price & Company operated a bookstore on the property. A year later, Samuel Golden and W. J. Morris purchased the property and opened a second-hand store, apparently replacing the bookstore. In 1907, the store was succeeded by a saloon, operated by resident Harry S. Daly. The saloon, like the businesses before it, proved to be ephemeral, closing within a year or two. In its place, non-resident Samuel Saniel opened an electrician’s shop. The 1920 census lists the Pennsylvania Light Company as the electricians doing business at shop that year. The 1920 census shows that all five tenants in the building were African Americans, most from southern states such as Georgia, North Carolina, and Mississippi and all were either unemployed or working as waiters, or laborers in the steel mill or railroad industries.

In 1925, Samuel Brutsky began selling soft drinks at the address and within two years, the business and/or the name changed to the Fullerton Café, which is shown on the 1927 Sanborn map as a two-story store building (Appendix V; Sanborn 1927), suggesting a replacement in the mid-1920s of the earlier three-story brick edifice or a removal of the loss/removal of the third floor. In 1929, the Fullerton Café was succeeded by the Thomas and Thomas Restaurant, operated by Thomas Sterling and Anna Thomas. In November of the same year, the *Pittsburgh Courier* (1929; Appendix VII) announced the opening of the new Chauncey Café, which served lunches and dinners. The business was soon replaced (in 1930) by a Chinese restaurant, which in 1953 became known as Lee’s Chinese Restaurant Jew Hop Sing, which remained in business until the building’s demolition ca. 1957 as part of the Lower Hill Redevelopment Project.

(13) 108 Fulton/Fullerton Street

Pittsburgh city directories indicate that 108 Fulton (later Fullerton) Street was first occupied by ca. 1865. The occupants listed for the years 1865-1880 in the city directories consisted of a retail druggist and one

or two clerks or drug clerks, suggesting that the location of an early retail drugstore. Detailed maps of the area (Appendix IV: Hopkins 1872, 1910; Hopkins 1882, 1889, 1900, 1910; Appendix V; Sanborn 1884, 1893, 1905) confirm the presence of a two-story brick building owned as early as 1872 by J. Guy and later (by 1889) sold to P. Weber, and continuing use as a drugstore through ca. 1910.

Throughout its 40+ years of operations, the drugstore employed a variety of druggists and clerks, some of whom resided above the shop. The building also housed a few other individuals/families who did not work at the drugstore. In 1880, the only residents listed in the census at 108 Fulton Street belonged to the Luke and Ellen Loomas family. Luke Loomas was employed as a “salesman in a glass warehouse”. Though born in Pennsylvania, Loomas’ parents hailed from New England. Loomas’ wife Ellen, also American born, was the daughter of Irish immigrants.

Around 1887, Fred J. Kellenberger (of White & Kellenberger druggists) purchased the property and moved his family into the building and served as druggist there for nearly the next 20 years until his death in 1905-06 at the approximate age of 40. Born in Pennsylvania, Kellenberger was of German ancestry, as was the one other tenant in the building in 1900 – John J. Fritscher, listed in the census and city directory as a porter. That the two-story building was described on the 1905 Sanborn map (Appendix V; Sanborn 1905) as a three-story structure suggests that it was enlarged or that a the earlier two-story drugstore was replaced with the taller, three-story edifice. For the next several years following Kellenberger’s death, drugstore operations continued under druggist William Schuchman. Around 1914 the drugstore closed and the building was used for several years as the Pres Hebrew Mission, which was one of many synagogues in the Lower Hill District neighborhood serving the growing Jewish population.

Around 1920, Russian Jewish immigrant, Harry Fairman, established a wallpaper store in the building and resided there with his family and several other Russian Jewish immigrants, one of whom – Harry Goldstein - was the proprietor of a clothing store. The wallpaper store was replaced by a retail hardware store around 1923, which operated into the 1930s. In the late 1920s, the hardware business was taken over by Abraham Kirshenbaum (also listed as Kilshenbaum). The same year, tenant Louis Simon was also reportedly operating a blacksmith at the same location. The Kirshenbaums closed the hardware store in the 1930s and established in its place a tavern known as Abe’s Bar and Grill, which remained in business minimally until the mid to late 1950s when the building was demolished as part of the Lower Hill Redevelopment Project.

(14) 194/1418 Webster Avenue

The earliest documented occupants listed in the city directories for the 194 (later 1418) Webster Avenue were tinner Hugh Doris and laborer James Sullivan, in 1870. James Sullivan may have been the brother of Michael Sullivan, who was shown on the Hopkins 1872 map as owner of the property, which contained a building, shown on later maps (Hopkins 1882; Appendix V: Sanborn 1884) to be a two-story brick store. Based on the city directories, second generation Irishman Michael Sullivan opened a retail grocery business on the property ca. 1871, but lived elsewhere within the city. He apparently closed the business ca. 1886 and by 1889, fellow Irish American Phillip Newman opened a fish market in its place. At the same time, owner Michael Sullivan apparently moved onto the lot and was listed in the city directories as first a machinist and later, an engineer. In 1896, the property address was changed from 194 to 1418 Webster Avenue.

A two-story rear section was added to the building between ca. 1900 and 1905, possibly coinciding with transfer of the property to M. Morrone (Appendix V: Sanborn 1905; Hopkins 1906). For several years, ca. 1904-1907, Charles Lorenzetti manufactured cigars on the property while in residence there. Afterwards, the building alternately or concurrently served as the bakery and grocery store of the Zaffuto family for the next 40+ years beginning ca. 1910, with brothers Ignazio and Joseph purchasing the

property in 1924. The 1920 census lists members of three Italian immigrant families residing and working on the property – Steve and Serne Piazza, Luca Santolascio, and James and Josephine Gaffeto – the lattermost name being a variation of the Zaffuto name listed in the city directories. The Zaffuto bakery/grocery store was still listed in 1956 city directory, but was demolished within the next several years as part of the Lower Hill Redevelopment Project.

(15) 196/1420 Webster Avenue

Tailor E. Hanragan was the first documented resident for the former 196 (later 1420) Webster Avenue address, as listed in the Pittsburgh 1856-57 city directories. There were no other directory listings again until William Moore's name appeared in 1869-70, although no additional information was included. In the 1872 directory, Moore was listed as employee or owner of a saloon at the address and was also living there, as was laborer Amos Jenkins. Neither resident was identified as the owner on the Hopkins 1872 map (Appendix IV; Hopkins 1872).

The 1880 census describes the two tenants at that time – George W. Shelly (also listed as Schelly) and John Weber (also spelled Webber) as an upholsterer and liquor store worker, respectively. The Schellys relocated from Virginia, while the Webbers emigrated from Switzerland. The building which they apparently rented was a two-story brick dwelling with an attached frame structure (or rear addition), which John Weber purchased prior to ca. 1882 (Hopkins 1882) and owned until ca. 1901-02. Ca. 1896, the property address was changed to from 196 to 1420 Webster. By 1900, John Weber had become foreman of a liquor store, while his sons - Andrew, Merne, and Oscar - worked as a bookkeeper, possibly in the same liquor store, a mechanical draftsman, and a letter carrier, respectively (Bureau of the Census 1900). The family maintained a (German-born) servant, indicating some degree of affluence.

In the first years of the twentieth century, the property changed hands at least twice, ending with the ca. 1904 purchase by Jewish peddler Herman (also spelled Hyman) Abrams. The city directories indicate that the building was used solely by the Abrams family as their residence through 1920. The census that year lists Herman and his wife Dora as Polish/Russian immigrants. While Herman was not listed as being employed or in business in the 1920 census and city directory, his children held jobs as salespersons or bookkeepers in local jewelry and shoe stores. By 1923, the Abrams had moved from their 1420 Webster Avenue home, although possibly still owning the building for some years. The 1927 Sanborn map (Appendix V; Sanborn 1927) shows the structure as being three stories, suggesting that the earlier two-story brick building was either enlarged or replaced in the mid-1920s with a larger edifice.

Residents during the late 1920s and 1930s included the George and Josephine Joseph family and Italian immigrants Fiore (Frank) and Congetta Puliano. The Josephs were confectioners at 1217 Webster and the Fiore Pugliano was a laborer. The 1940 census lists only the Pugliano family at the 1420 Webster Street address, indicating that Fiore was a laborer with the Highway Department and that two sons were working as a bookkeeper and a laborer, respectively. Their names disappear from the city directory before 1951. Afterwards, for several years, the building was used as the residence of Trevelyn Slade and later Albert Rogers, the latter of whom was in the trucking business. The building was demolished by the late 1950s as part of the Lower Hill Redevelopment Project.

(16) 209/1407 Wylie Avenue

The earliest available city directory (1850) indicated no one living or working at 209 (later 1407) Wylie Avenue at that time. The earliest documented resident was plumber John Boyd in the 1856 directory. Boyd continued living and working out of his home for over 10 years, in a partnered plumbing business ca. 1870 known as Boyd and Scott. Another early resident was Henry Bauer, a likely partner in the German printing firm of Backoffen & Bauer, whose business location was described in the business

section of the city directory only as the “Gazette Building.” Also, in the 1860s, Jane Boyd was listed as a dressmaker at the same address.

The 1872 Hopkins map (Appendix IV; Hopkins 1872) depicts the lot as vacant, suggesting that an earlier building on the property may have been destroyed. However, there were no years between 1856 and 1872 when occupants of the property were not listed in the city directory. Either the map incorrectly depicted the vacancy of the lot, or a later building was constructed after publication of the 1872 map. The owner of the property – Mrs. Foran – was not listed among the residents. The 1880 census lists John Boyd, who was living on the property as early as 1856, as a retired laborer of Irish birth. That his son and daughter also were born in Ireland suggests that dressmaker Jane Boyd may have been his first wife, although he was married to Pennsylvania-born Mary Boyd at the time of the 1880 census. Two other boarders in the Boyd household at the time – Hugh Jackson and Sarah Jackson -- also were Irish born immigrants.

English immigrant William D. Pownall (also spelled Pownell), listed in the 1880 census as a carpenter, opened an undertaking establishment at 209 Wylie Avenue in 1880. The business remained at that location for 20+ years. Hopkins’ 1882 map depicts a frame building on the lot, which was occupied that year as the business of carpet weaver C. H. Smith (deceased) on the west side and William Pownall’s undertaker business on the east side. The one-story frame building also included an adjoining carpenter shop at the rear, as shown on the Sanborn 1884 map (Appendix V; Sanborn 1884). During the 1880s and 1890s, other businesses such as painters and a tailor, were operating concurrently with Pownall’s funeral establishment.

Between ca. 1893 and 1900, the one-story frame building was replaced with a three-story brick edifice, possibly coinciding with the land purchase by R. McEldowney. Also, in 1896, the address had changed from 209 to 1407 Wylie Avenue. There were no listings for the address in the 1900 census, suggesting that the building was unoccupied or being used only for commercial purposes that year. The former scenario is not likely given that Pownall was still in business at that location for several more years, until ca. 1903. Within six years, a funeral parlor was reopened by African American Daniel Edwards, of Edwards and Company, who also resided at the same location. In 1910, Edwards was described as only one of two Black undertakers in the city (Appendix VII: *Pittsburgh Courier* 1960). With the construction of the three-story brick building in the 1890s, the number of occupants increased, comprising a mix of working class people (e.g., firemen, laborers, janitors electricians, porters, barbers, etc.) as well as business owners such as Italian fish merchant Domenick Armenti and his family (U.S. Bureau of the Census 1920).

Ca. 1923, a restaurant business was established by William S. and Effie Berwell. Within two years, Gus Greenlee took over the business and renamed it the Greenlee and Williams Restaurant, but it, too, closed within a few years. Gus Greenlee went on to become a prominent businessman in the Hill District as owner of the Crawford Grill and the Pittsburgh Crawfords baseball team (clpgh.org). In the late 1920s, Hyman Shapiro operated a bank loan office for two years and was replaced in 1930 by the Crystal Smoke Shop and Confectionary of Leonard Williams and June Turner. By 1940, that business was succeeded by a shoe repair shop, a novelty shop (L & R Novelty Co.), a music store called the Down Beat Record Shop, and by 1950, the Deluxe Barber Shop. The 1940 census indicates that all of the residents (Jenkins, Wilson, Howell, and Reed families) were African Americans who had immigrated from the South. The barber shop was still operating in 1956 but within the next few years building was demolished as part of the Lower Hill Redevelopment Project.

(17) 211-211½/1409-1411 Wylie Avenue

The earliest available city directory (1850) listed two occupants – John Abbot and Joseph Beale -- at 211-211½ (later 1409-1411) Wylie Avenue; they were listed as a laborer and painter, respectively. During the 1850s and 1860s, the members of the Keefe or Keefer family were living on the property, which became known as “Keefe’s Court” as referred to in the city directories of the period. In 1860, resident Patrick Keefer was listed in the city directory as a carter. The 1872 Hopkins map (Appendix IV; Hopkins 1872) labeled this parcel as “205,” showing a single structure owned by J. Boyd, who was listed in the 1870 city directory as a resident plumber. Other building residents included skilled and unskilled workers such as painters, laborers, carters, and shoemakers.

The 1880 census listed two resident families in the westernmost apartment of the duplex (211 Wylie). They were Polish (Russian) Jewish immigrants, headed by jeweler Benjamin Block and laborer A. Jacobson at 211 Wylie. In the neighboring apartment within the duplex (211½ Wylie) were Irish immigrant (Mary O’Conner) and her family as well as an Anglo American family of laborer Johnson Stewart and his Irish immigrant wife, Elizabeth. The 1882 Hopkins and 1884 Sanborn maps (Appendix V; Sanborn 1884) collectively depict a three-story brick duplex, both labeled as stores on the Sanborn map, although the upper floors would also have served as residences.

The 1890 city directory listed only grocer Thomas Jobes of Jobes, White, & Company at 211 Wylie Avenue address. No listings were found for 211½ Wylie. The 1893 Sanborn map (Appendix V; Sanborn 1893) shows a cigar factory and a Chinese laundry operating in the building that year. Apartment residents during the 1890s were a mix of skilled and unskilled workers as well as proprietors of the grocery store and tobacco factory that operated on-site. In 1896, the duplex building was split into two addresses and changed to 1409 and 1411; they are further discussed individually below.

1409

The 1900 census lists all of the residents at 1409 Wylie Avenue as African Americans, belonging to the Charles A. and Mary C. Howard family, and including a boarder. That the 38-year-old Charles and his mother were originally from Virginia and his father was English, suggests that Charles was a mulatto born of a planter father and slave mother, although this has not been confirmed. Charles was listed in the census as a constable, while another possible member of the household was listed as a manicurist. During the first decade of the 1900s, at least three different businesses occupied the property – a barber shop, followed by a restaurant and later a notions shop. Around 1910, the shop became home to a confectionary operated by eastern European Jewish immigrants, including Howard Schwartz, listed in the 1920 as having been born in Poland (Russia). Although the confectionary continued to be listed in the city directories through at least 1940, a stationer and later a clothes cleaner also were listed briefly in the 1930s. By 1951 a commercial photograph had replaced the confectionary and continued in business through at least the early 1950s. In 1955, Ketchum’s Tailor Shop moved into the building, but was demolished within the next few years as part of the Lower Hill Redevelopment Project.

1411

With the exception of Chinese immigrant and laundryman Yee Yucan, the 1900 census lists all the occupants of 1411 Wylie as being African-Americans and either belonging to the James and Lizzie L. Everett family or living with them as boarders; James Everett was listed as a constable. Ca. 1906, the barbershop of Wiley and Cook was listed for the property but was replaced ca. 1910 by a men’s furnishing store. Between ca. 1920 and 1957, 1411 Wylie was the site of a jewelry store owned and operated by Clifford McEvoy, an African-American who, with his wife, emigrated from Georgia and lived above the store.

Clifford McEvoy was trained as a watchmaker in Macon, Georgia and came to Pittsburgh in 1915 at the age of 18. He first worked for Levinson Brothers in the Bessemer Building, before spending some time in Chicago. When he returned to Pittsburgh, he was employed by the Pittsburgh Watch Company. When the owner sold the company, he encouraged McEvoy to start his own business. McEvoy's first store was a small one room shop at 1416 Wylie Avenue. He moved his store to 1411 Wylie Avenue in 1919 and became a well-known fixture in the Hill District until 1957, when he was forced to relocate as part of the Lower Hill Redevelopment Project (Appendix VII; *Pittsburgh Courier* 1927, 1957, 1977). McEvoy decided to retire rather than move the store to Homewood where several of the Hill District businesses had relocated. Clifford McEvoy died February 18, 1977 in Penn Hills, an eastern suburb of Pittsburgh. He was recognized as a prominent member of Hill District society from the 1920s until his retirement in 1958 (Appendix VII; *Pittsburgh Courier* 1927, 1957, 1977).

(18) 227/1509, 1511, 1513 Wylie Avenue

The earliest detailed mapping for 227 (later 1509, 1511, 1513) Wylie Avenue, in 1872 (Appendix IV; Hopkins 1872), shows a vacant lot at that location on the corner of Wylie Avenue and Crawford Street, owned by F. Goodwin; however, no names are listed as occupants in the city directory for that address. The 1876 directory lists a liquor store at 227 Wylie, owned still by F. Goodwin, who is described as living next door at 225 Wylie Avenue. In 1880, the federal census and the city directory list the address as a commercial property – a flour, grain, and feed store – operated by Carr & Boyle.

In 1882, 227 Wylie was listed in the city directory as the home and business of Margaret McConomy, a dress maker also dealing in retail notions, although the Hopkins 1882 map show the building to be a frame stable/shed. A later (1884) Sanborn map (Appendix V; Sanborn 1884) clarify that a one-story office building is located on the west side of the address, while a one-story stable/shed is present on the east side. The 1889 Hopkins map further reveals that both are frame buildings, still owned by F. Goodwin.

By 1893, Kate Clark, widow of retail grocer Thomas J. Clark is listed as one of three residents at the address. The other two – William Johnson and George White – are listed in the directory as a fireman and laborer, respectively. The Sanborn map for that year (Appendix V; Sanborn 1893) shows that the one-story building on the west side of the lot includes an outside oven, possibly associated with the grocery store of the late Thomas G. Clark. Grocers E.N. and H.M. Boyd are listed in the directory as residing and conducting business there, as is dress maker Ruth Wamser.

In 1896, the address changed from the single address of 227 to three individual addresses – 1509, 1511, and 1513 Wylie Avenue. Ca. 1906, M. Burke acquired ownership of the lot that contained 1509-1513 Wylie Avenue and continued the renting the buildings primarily for commercial use, as discussed individually below:

1509

In 1896, shoe maker Michael Rotunno was listed in the directory as the sole occupant, living and working at the same address. The following year, that business was replaced by a dining room operated by Joseph Countee. That business, too, was short lived, having been replaced by the barber shop of Joseph S. Simmons by 1900. Simmons was listed in the 1900 federal census as an unmarried African American, who also resided at his place of business. The barber shop established there in 1900 continued operations for the next 50+ years, although under no less than seven different barbers. By 1951, it was known as the Good Shepherd Barber Shop. The business remained open until at least 1956, and within the next few years the building was demolished as part of the Lower Hill Redevelopment Project.

1511

In 1897, Matt Harris was listed in the city directory as a barber. It is not clear if he worked in association with the barber shop next door at 1509 Wylie Avenue or maintained an independent business. Around 1900, the barber business was replaced by a lunch room, operated by various member of the Samuel or Samuels family until ca. 1915. Thereafter, the one-story frame shop housed a shoemaker's shop (ca. 1920-1927), the Midway Restaurant (ca. 1929-1931), George's Shoe Shine (ca. 1930s-1940s), and the Winfield Variety grocery store (ca. 1940s-1950s). The grocery store remained open until the mid to late 1950s when the building was demolished as part of the Lower Hill Redevelopment Project.

1513

Ca. 1896 a billiards parlor operated by George P. Webb moved into the one-story frame building and was soon (1897) managed by William G. Johnson, who continued in business there through 1905-1906. With the closure of the pool room came the establishment of a confectionary business owned or managed first by Eastern Jewish immigrant Abraham Meritzer and subsequently by one of five others, mostly Jewish immigrants who maintained the business at that location until the 1940s. In the 1950s it was listed in the city directories as a radio repair shop and later a grocery, operating through at least 1956. Within the next few years, the building was demolished as part of the Lower Hill Redevelopment Project.

SUMMARY

Following are general observations regarding land-use and changing social patterns for the 18 examined properties/lots within the Lower Hill District Project Area, based on data extracted from available Pittsburgh city directories (ca. 1850-1956), historic Hopkins and Sanborn mapping (ca. 1872-1951; (Table 3), and select census data from 1880 through 1940.

Table 3: Historically Researched Lower Hill Properties¹

Address	Property/Business/Other Name ²	Initial Occupation Date	Property Use	Commercial Use	Archaeological Site
Archaeologically Tested Properties					
Centre Avenue & Fulton St.	Holy Trinity German Catholic Church and School (1860-1951)	1856-57	Church, school, convent, pastoral residence		36AL637
88 Crawford St.		1855	Single/multi-family residence		36AL636
90 Crawford St.		By 1850	Single/multi-family residence		36AL636
29 Fulton (Fullerton) St.	Benevolent Order of Elks (1910-1913)	By 1850	Single/multi-family residence		36AL635
31 Fulton (Fullerton) St.		1856	Single/multi-family residence		
Properties Not Archaeologically Tested					
1430 Bedford Ave.	Hotel Benson (1920-1940)	1900-1905	Single/multi-family residence		
79 Franklin (1401 Epiphany) St.		1858	Multi-family residence/business	Express/transfer , bakery	
83 Franklin (1405 Epiphany) St.		By 1850	Multi-family residence		
53 Fulton (Fullerton) St.	Burke's Theater (1920-1931), Royal Garden Hall (1927) Egyptian Gardens Golf Course (1930-?) Ritz Café (1932-1941+) Rhumba Theater (1932-1956) Bambola Club	By 1850	Multi-family residence/business	Theater	
55 Fulton (Fullerton) St.	Burke's Theater (1920-1930), Williams Bros. Billiards (1915) Williams Billiard Parlor (1929), Egyptian Gardens Golf Course (1930-?) Ritz Café (1932-1941+) Monarch Bowling & Billiard Academy (1931)	By 1850	Multi-family residence/business	Saloon, grocery, movie theater, billiard parlor	
72 Fulton (Fullerton) St.	Stein's Hall (1910) McCoy Drug Company (1927)	1861	Business, single/multi-family residence	Bakery, dining room, billiards parlor, drugstore, barber shop	
76 Fulton (Fullerton) St.	Fullerton Café (1927), Thomas & Thomas Restaurant (possibly same as Chauncey Café, 1929), Fong & Lee Restaurant (1930-1951), Lee's Chinese Restaurant (1953-1956)	By 1850	Single/multi-family residence	Second hand store, saloon, electrician's shop, soft drink shop, restaurant	
108 Fulton (Fullerton) St.	President Hebrew Mission (1920), Abe's Bar and Grill (1940-1956)	1865	Business, single/multi-family residence, synagogue	Drugstore, wall paper store, hardware store, blacksmith, restaurant	
194 (1418) Webster Ave.	E. Zaffuto & Brothers (grocery, 1921-1956)	1870	Business, single/multi-family residence	Grocery, fish merchant, cigar manufacturer, bakery/confectionary, grocery	

Address	Property/Business/Other Name ²	Initial Occupation Date	Property Use	Commercial Use	Archaeological Site
196 (1420) Webster		1856-1857	Business, single/multi-family residence	Saloon/tavern	
209 (1407) Wylie Ave.	Greenlee and Williams Restaurant (1925-1926), Avenue Lunch (1927), Crystal Smoke Shop (1931-1932), Modern Shoe Repair (1940), Downbeat Record Shop (1946) Deluxe Barber Shop (1951-1953), Williams Deluxe Barber Shop (1956)	1856	Duplex business, single/multi-family residence	Possible plumber, undertaker, carpenter shop, restaurant, bank loan office, smoke shop, confectionary, shoe repair shop, barber shop	
211-211½ (1409, 1411) Wylie Ave.	1409: Hoyle & Brooks (1927) Valet Shop Clothes Cleaners (1932) 1411: C. McEvoy Jewelry Store (1919-1958) Ketchum's Tailor Shop (1955)	By 1850	Duplex business, single/multi-family residence	Cigar factory, Chinese laundry, barber shop, dining room, notions store, confectionary, clothes cleaners, photography studio; tailor shop(?), jewelry store	
227 (1509, 1511, 1513) Wylie Ave.	1509: Good Shephard Barbershop (1940-1956), 1511: Midway Restaurant (1931), Winfield Variety (1951-1956) 1513: Mahfood Radio Repair (1951), Sam Sargo Grocery (1953)	1876	Business (3 store unit by 1927), single/multi-family residence	Liquor store; flour, grain, & feed store; notions store; grocery, shoe maker; dining room, barber shop; lunch room/dining room, billiard parlor, confectionary, radio repair shop	

¹ All properties were occupied or in commercial use until the mid- to late 1950s, with the exception of 88 and 90 Crawford Avenue, the buildings on these properties, as well as several others on the same block, were removed ca. 1944-1948 and remained as vacant lots until paved after ca. 1968.

² Dates refer to years when listed in the Pittsburgh city directories.

Seven properties (38.9%) were initially being occupied as early 1850 – during the early phase of development for the Hill District, which began in the late 1840s (www.carnegielibrary.org). The majority of properties (n=10, 55.6%) were first occupied between ca. 1850-1875, and only one property (5.5 %) was first occupied after 1900 (but before ca. 1905). A look at the historic Hopkins and Sanborn mapping reveals that most of the Project Area had been developed for residential, commercial, or other use and buildings had been constructed on most of the lots by 1872. A notable exception was the 100 block along Bedford Avenue and its back street (Poplar Alley), between Fulton and Logan Streets, which remained undeveloped in 1872 and only partially developed as late as 1893.

While a substantial number of buildings appearing on the Hopkins maps of the 1880 and 1890s were recorded as frame structures, approximately 80% of the 18 examined properties in the Project Area were three- (or less frequently) two-story brick buildings. Six properties (33.3%) functioned solely as multi-family dwellings, while eleven (61.1%) combined mixed commercial and residential use; one property (5.6%) was the site of the church, monastery, and related school.

As shown in Table 4 and based on collected census data for the 18 studied properties, residents prior to the 1880s consisted almost entirely of White Euro-Americans of Anglo or Germanic ancestry. Notable exceptions were 29 Fulton/Fullerton Street, where the Mulatto family of Robert Campbell resided from ca. 1860 to 1880; 88 and 90 Crawford Street, where all of the residents in the 1880 census were listed as Black, and 55 Fulton/Fullerton Street, where half of the residents in the 1880 census were listed as Black. According to Glascoe (1986), Pittsburgh's African American population in 1850 consisted of approximately 2,000 individuals, which were centered in "Little Hayti," an area located just off Wylie Avenue in the Lower Hill District. They arrived with the earliest settlers, as trappers, pioneers, soldiers, and slaves (Glascoe 1986). Pittsburgh's growing industries after the Civil War attracted many more Blacks to the county, with numbers more than quadrupling between 1860 (n=2,725) and 1890 (n=13,501) and more than doubling again by 1900 (n=27, 853; Tucher 424-425). That Robert Campbell owned is home and operated a barber shop is consistent with the Tucker's (1914) and Glascoe's (1986) statements that the first area's first African-Americans to set up businesses of their own tended to be barbers and hairdressers. Most others could find work only as day laborers, janitors, porters, coachmen, waiters, and stewards. Many Black wives were forced to seek work outside the home as servants, domestics, and washerwomen to offset their husbands' low earnings.

By the time of the 1900 census, there was a marked demographic change among the 18 studied properties, as greater numbers of African-Americans as well as Jewish immigrants from Eastern Europe began moving into the area. According to Reed (1914:420), the greater part of Pittsburgh's Jewish community first became established in the Hill District. In 1900, Blacks occupied at least half of the 18 examined properties in the Project Area, either solely or integrated with Euro-Americans, or in one instance, with Chinese immigrants. At two other properties, Jewish immigrant families were the sole residents.

The 1920 census shows an increasing number of properties occupied either solely by African-Americans or Jews, as nine of the fourteen residential properties (64.3%) that year were housing members of these two dominant racial/ethnic groups. Italian immigrants also accounted for two additional properties, and at one location (79 Crawford Street), the building was shared by Jewish and Syrian families. Similar patterns were observed in the 1940 census. These patterns are consistent with the 1914 observations by Anna Reed and Helen A. Tucker of the growing African-American and Jewish presence of the Hill District during the late nineteenth and early twentieth centuries. Based on the 1914 survey of a two-block area adjacent to Centre Avenue of 143 Jewish families, 110 (76.9%) had emigrated from Russia, 27 (18.9%) came from Romania, and only 6 (4.2%) arrived from Austria-Hungary or Germany.

Table 4: Racial/Ethnic Affiliation of Historically Researched Lower Hill Properties from 1880, 1900, 1920, and 1940 Census

Address	Property/Business/Other Name ²	Racial Group ¹			
		1880	1900	1920	1940
Archaeologically Tested Properties					
1501-1503 Centre Avenue & 109 Fulton Street	Holy Trinity German Catholic Church and School (1860-1951)				
88 Crawford St.		Black	White (Jewish)	White (Jewish)	Black
90 Crawford St.		Black	White (Jewish)	White (Jewish)	Black
29 Fulton (Fullerton) St.	Benevolent Order of Elks (1910-1913)	--	White ¹	--	Black
31 Fulton (Fullerton) St.		--	White	Black	Integrated White & Black
Properties Not Archaeologically Tested					
1430 Bedford Ave.	Hotel Benson (1920-1940)	Vacant	Vacant	Black	White (with Black hotel proprietor
79 Franklin (1401 Epiphany) St.		White	Black	White (mixed Jewish & Syrian)	Black
83 Franklin (1405 Epiphany) St.		White	Black	Black	Black
53 Fulton (Fullerton) St.	Burke's Theater (1920-1931), Royal Garden Hall (1927) Egyptian Gardens Golf Course (1930-?) Ritz Café (1932-1941+) Rhumba Theater (1932-1956) Bambola Club	White	Black	-- (Commercial use only)	-- (Commercial use only)
55 Fulton (Fullerton) St.	Burke's Theater (1920-1930), Williams Bros. Billiards (1915) Williams Billiard Parlor (1929), Egyptian Gardens Golf Course (1930-?) Ritz Café (1932-1941+) Monarch Bowling & Billiard Academy (1931)	Integrated White & Black	Integrated White & Black	-- (Commercial use only)	-- (Commercial use only)
72 Fulton (Fullerton) St.	Stein's Hall (1910) McCoy Drug Company (1927)	White	White	Black	Black
76 Fulton (Fullerton) St.	Fullerton Café (1927), Thomas & Thomas Restaurant (possibly same as Chauncey Café, 1929), Fong & Lee Restaurant (1930-1951), Lee's Chinese Restaurant (1953-1956)	White	Integrated White & Black	Black	-- (Commercial use only)
108 Fulton (Fullerton) St.	Pres Hebrew Mission (1920), Abe's Bar and Grill (1940-1956)	White	White (Jewish?)	White (Jewish)	White (Jewish)
194 (1418) Webster Ave.	E. Zaffuto & Brothers (grocery, 1921-1956)	White	White	White (Italian)	White (Italian)
196 (1420) Webster		White	White (Swiss/Germa	White (Jewish)	White (Italian)

Address	Property/Business/Other Name ²	Racial Group ¹			
		1880	1900	1920	1940
			n American)		
209 (1407) Wylie Ave.	Greenlee and Williams Restaurant (1925-1926), Avenue Lunch (1927), Crystal Smoke Shop (1931-1932), Modern Shoe Repair (1940), Downbeat Record Shop (1946) Deluxe Barber Shop (1951-1953), Williams Deluxe Barber Shop (1956)	White	-- (No listing)	White (Italian)	Black
211 (1409) 211½ (1411) Wylie Ave.	1409: Hoyle & Brooks (1927) Valet Shop Clothes Cleaners (1932) 1411: C. McEvoy Jewelry Store (1919-1958) Ketchum's Tailor Shop (1955)	White White (Jewish)	Black & Chinese Black	White (Jewish) Black	-- Black
227 (1509, 1511, 1513) Wylie Ave.	1509: Good Shephard Barbershop (1940-1956), 1511: Midway Restaurant (1931), Winfield Variety (1951-1956) 1513: Mahfood Radio Repair (1951), Sam Sargo Grocery (1953)	(Commercial use only)	Black	(Commercial use only)	(Commercial use only)

¹ "White" refers to Caucasian Americans and Western Europeans unless otherwise noted,

Tucker (1914:425) further observed that Wylie Avenue was the principal location for African-Americans and that the Hill District was composed largely of Blacks and immigrants in a non-segregated setting. The author contends that while native-born Whites tended to relocate when a substantial number of Blacks moved into an area, Jewish immigrants of varying economic levels were not averse to living with African-American neighbors on the same block or in the same building. Among the 18 studied properties in the Project Area, however, buildings tended to be occupied by one racial group or the other. In relatively few instances (at 31, 55, and 76 Fulton/Fullerton Street) there *was* evidence of racial integration in the 1900 and 1940 census. Of note, however, is the Hotel Benson (1430 Bedford Avenue), which was owned and operated by an African-American, but whose entire client base of 100 residents was listed as White in the 1940 census.

The businesses operating at the 18 examined properties during the late nineteenth through mid-twentieth centuries generally consisted of individual- or family-owned enterprises such as confectionaries/bakeries, groceries, drugstores, restaurants/dining rooms, hardware stores, tailor shops, saloons, billiard parlors. Also among the studied properties were a funeral parlor, a Chinese laundry, jewelry store, movie theater/night club (Burke's/Rhumba Theater and Bambola Social Club). Also present were social organizations, such as the Elks Club, and religious organizations (Holy Trinity Catholic German Church and School and Pres Hebrew mission). While a number of businesses such as the Burke/Rhumba Theater, McEvoy's Jewelry Store, Hotel Benson, E. Zaffuto & Bros. Grocery, etc. successfully continued

operations for a prolonged period (more than 20 to 30 years), most of the businesses at the examined properties were less enduring -- either having closed within several years, changed proprietors, or were replaced by other businesses. With the exception of the theater and a few others, the vast majority of the businesses among the 18 studied properties were managed or owned by persons who leased, rather than owned, their respective work spaces. Commonly, the business operators both lived and worked within the same building, which also served as multi-family dwellings.

An even greater degree of transience was observed among residents of the 18 researched properties, from the time of early settlement (ca. 1850) until removal of the buildings by the URA for the Lower Hill Development Project in the mid- to-late 1950s. Relatively few of the properties were owner occupied for any length of time, and therefore some degree of transience among renters is expected. However, the city directories for many of the researched properties showed that renters routinely changed their place of residence, often on a yearly basis or perhaps more often. Reed (1914:420) noted that among Pittsburgh workers, it was not uncommon for a family to move six or more times in a year in search of more livable quarters.

Economically, the city directory and census data show a predominance of working class individuals among the residents of the 18 examined properties. For the several archaeologically examined properties for which pre-1880 census data was collected, the most commonly represented occupations listed included skilled and unskilled laborers/craftsmen, barbers, saloon keepers, druggists, and plumbers. Included in the 1880 census were a broader range of listed occupations, including hatters, millwrights, salesmen book keepers, livery hands, seamstresses, glass blowers, painters, cabinet makers, firemen, barbers, grocers, rivermen, (river?) pilots, railroaders, clerks, coal diggers, tanners, carpenters, liquor dealers, lamp washers, watchmen, porters, shoemakers, tailors, upholsters, dressmakers, engineers, carters, attorneys, tobacconists, bakers, jewelers/watchmakers, police, druggists, undertakers, printers, plumbers, shearmen, and unspecified laborers.

With the rapid growth of steel industry in the late nineteenth century came an even more expanded mix of professional/management, clerical, and labor occupations to the 18 examined properties. Most of the earlier listed occupations, e.g., laborers, druggists, barbers, clerks, bakers, bartenders/liquor dealers, cigar makers, bookkeepers, continued to be represented among the residents as well as other professions such as shoe shiners, charwomen, cooks, butchers, laundresses, porters, janitors, baggage masters, advertising agents, contractors, teachers, bankers, constables, teamsters, peddlers, postal clerks, merchants, restaurant owners, chemists, musicians, stewards, packers, waiter/waitress, puddlers, broom makers, attorneys, nurse, managers, secretaries, elevator operators, junk dealers, domestics, brick layers, theater operator, billiards proprietor, telephone operator, slater, booksellers, electricians, second hand store proprietors, wall paper proprietors, hardware proprietors, blacksmith, cigar manufacturers, smoke shop proprietors, bank loan officers, piano teachers, hod carriers, booking agents, radio repairmen. Service industry jobs such as porters, janitors, shoe shiners, domestics, charwomen cooks, and waiters/waitresses were common positions among migrant Black residents, who were largely shut out of most other higher wage jobs or opportunities for business ownership. Among Jewish immigrants, cigar manufacturing and peddling, sales, and bookkeeping were commonly listed professions, although many held semi and lower skilled jobs such as laborers, seamstresses, tailors, tanners, etc.

FULTON/FULLERTON STREET AND WYLIE AVENUE CENSUS OVERVIEW

In order to examine the cultural environment within the Project Area more systematically, census data from four years 1880, 1900, 1920, and 1940 were systematically collected for two sample areas located within the Project Area on Fulton/Fullerton Street and Wylie Avenue. Data was not collected for years prior to 1880 because of the lack of address information nor for years after 1940, as census data are not currently available. The two similarly sized sample areas included all properties on both sides of the streets within the 1200 block of Wylie Avenue, between Elm and Logan streets, as well as Fulton/Fullerton Street, between Webster and Bedford avenues. The total number of residents for whom the census data was collected is shown by census year in Table 5.

Table 5: Number of Surveyed Individuals in 1880-1940 Federal Census – Fulton/Fullerton Street and Wylie Avenue

Census Year	Fulton (Fullerton) St. No. Surveyed	Wylie Ave. No. Surveyed	Total
1880	48	118	166
1900	87	144	231
1920	78	121	199
1940	112	161	273

The data examined included the resident's place of birth (Table 6), parents' place of birthplace (Table 7), racial affiliation (Table 8), and occupation categories (Table 9 and Table 10). From these collected data, some generalizations can be extrapolated regarding the cultural and racial composition as well as the general socioeconomic character of these two sample blocks, minimally, and possibly for the Project Area and Lower Hill District, more generally.

Only individuals 16 years of age or older were included in the data collection, as younger individuals were not as likely to be counted as wage earners. Racial classifications appeared in the census either as White, Black or Negro, Mulatto, Chinese, or Indian. Because not all individuals classified as "Black" or "Negro" were born in the United States, the term African-American does not apply to these non-native-born individuals. Therefore, the term "Black" is used here when referring to the historically referenced "Black/Negro" racial group.

Loosely following David Grusky's 1986 *American Social Mobility in the 19th and 20th Centuries*, the occupations listed in the 1880-1940 census for the two sample groups are divided in six categories: Technical/Professional, Proprietor/Manager, Clerical/Sales, Craft/Skilled Labor, Semi-skilled and Unskilled Labor, and Other. These classifications are further collapsed into two more generalized groupings of White Collar Workers and Blue Collar Workers (Table 9). The listed professions assigned to each category are presented in Table 10. Occupation data were collected only for those adults who were wage earners; individuals described as "keeping house" or having no job were not included in this occupation data set. The usefulness of the occupational data in addressing broad economic issues is rather limited and can be applied in only the most general terms, as the information provided in the census was occasionally found to be too vague to accurately place occupations within more specific categories. For example, the job of "confectioner" could be interpreted either as a worker in a confectionary shop, implying a lower wage semi- or unskilled job, or the more highly compensated owner/proprietor. In addition, a discussion of wealth cannot be addressed in the absence of corresponding income data for the wide ranging occupations described in the census.

1880

An examination of the 1880 census shows that the vast majority of the 166 working residents in the two study blocks were American born or had migrated from western European countries (i.e., Ireland, England, Wales, Germany). The only noted deviation was a 3.4% presence on Wylie Avenue of Eastern European (Rus-Pole) immigrants. Those born in the U.S. were almost exclusively natives of Pennsylvania (n=88.3-92%), with the rest relocating from New York. Similarly, most of the parents were born either in the U.S. (19.8-41.5%) or Western Europe (45.4-65.6%), primarily Ireland. Notably more parents were born in Western Europe (primarily Ireland and Germany), particularly those on Fulton/Fullerton Street, denoting that many of the American residents in the study group were second generation Euro-Americans. Racially, all of the residents on Fulton (Fullerton) Street were listed as White, and only 2.5% of Wylie Avenue residents were reported as “Black” or “Mulatto,” with the remainder listed as White.

The study groups consisted primarily of Blue Collar workers (67.2% - 84.2%). Among the 15.8%-32.8% of those assigned to the White Collar group were a county treasurer, policeman, minister, retail grocer, commission merchant, candy store (owner?), carpet dealer, retired contractor, various clerks and bookkeepers, peddlers, photo agent, wholesale liquor dealer, salesmen, lawyers, manufacture of machines, and teachers/professors. The Blue Collar group represented a wider range of job types, some of which were related to the railroad, glass, construction, and nascent steel industrial, e.g., glass blowers, machinists, plumbers, boiler makers, brakeman, roofers, stone masons, engineer, varnisher, brass fitter, painter, etc. Relatively few workers were employed in the service or cottage industries (e.g., servants, bartenders, tailors/tailoresses, dress makers, livery workers).

1900

Similar to observed patterns in the 1880 census, the vast majority of the 231 working residents on both streets were American-born or Western European immigrants, although the percentages of immigrants from Western Europe decreased substantially (by 20-28.3%). At the same, the numbers of Eastern European immigrants and particularly African-Americans from the Deep South began to increase, though no Blacks were found in the Fulton/Fullerton Street study block in either the 1880 or 1900 census years. On Wylie Avenue, 12.5% of the study group consisted of Blacks, many emigrating from Southern states. The 4.0-14.7% of residents in the two study blocks that were of Eastern European birth primarily came from Russia and Poland, Hungary, and Romania. Based on surnames, most appeared to be ethnic Jews. The larger percentage of these immigrants lived in the Wylie Avenue study block. Also on Wylie Avenue was a small (3.4%) group of English Canadian and Jamaican immigrants.

Table 6: Percentage of Resident Birthplaces for Fulton/Fullerton Street and Wylie Avenue Sample Blocks Based on Census Data

Census Year	United States			Western Europe ³	Eastern Europe ⁴	Middle East ⁵	Other ⁶
	North ¹	South ²	U.S. Total				
Fulton/Fullerton Street							
1880	100.0	0.0	52.1	47.9			
1900	91.0	9.0	77.0	19.6	3.4		
1920	38.5	61.5	83.3	3.8	11.5		1.4 (Mexico)
1940	47.1	52.9	77.7	--	--	3.6	18.7 (Italy)
Wylie Avenue							
1880	93.0	7.0	72.9	23.7	3.4		
1900	80.4	19.6	68.1	16.0	12.5		3.4 (Canada, Jamaica, At Sea)
1920	46.9	53.1	79.3	--	5.8	12.4	2.5 (Canada, Italy)
1940	38.3	61.7	95.7	0.6	--	1.2	2.5 (Italy, Cuba)

Table 7: Percentage of Parents' Birthplace for Fulton/Fullerton Street and Wylie Avenue Sample Blocks Based on Census Data

Census Year	United States			Western Europe ³	Eastern Europe ⁴	Middle East ⁵	Other ⁶
	North ¹	South ²	U.S. Total				
Fulton/Fullerton Street							
1880	89.5	10.5	19.8	80.2			
1900	83	17.0	35.3	60.2	4.5		
1920	27.6	72.4	75.4	7.8	11.6		5.2 (Italy, Mexico)
1940 ⁷	--	--	--	--	--	--	--
Wylie Avenue							
1880	96	4.0	41.7	54.0	3.0		1.3 (Canada, West Indies, Cuba
1900	70.5	29.5	48.3	33.6	14.7		3.4 (Italy, Jamaica, Canada
1920	26.2	73.8	71.4	4.5	7.8	15.1	1.2 (Italy, Canada)
1940 ⁷	--	--	--	--	--	--	--

1 Includes all Eastern states north of the Mason Dixon Line, as well as the Midwestern states of Ohio, Indiana, and Illinois

2 Includes all Eastern states south of the Mason Dixon Line, as well as the Midwestern and Southern Plains states of Missouri, Kansas, Oklahoma, and Arkansas

3 Includes England, Scotland, Ireland, Wales, Germany, Switzerland, Holland

4 Includes Russia, Poland, Hungary, Romania

5 Includes Syria, Palestine, Turkey

6 Includes Italy, Canada, West Indies, Jamaica, Cuba, Mexico, At Sea

7 Information category not included in census

Table 8: Percentage of Racial Groups in Fulton/Fullerton Street and Wylie Avenue Sample Blocks Based on Census Data

Census Year	White	Black	Mulatto
Fulton/Fullerton Street			
1880	100.0	0.0	
1900	100.0	0.0	
1920	29.5	70.5	
1940	46.4	53.6	
Wylie Avenue			
1880	97.5	0.8	1.7
1900	87.5	12.5	
1920	24.0	76.0	
1940	8.7	91.3	

Table 9: Percentage of Occupation Classifications for Fulton/Fullerton Street and Wylie Avenue Sample Blocks Based on Census Data

	Technical/ Professional	Proprietor/ Manager	Clerical/ Sales/ Routine Non-Manual	Other	White Collar Total	Craft/Skilled Labor	Semi-Skilled & Unskilled Labor	Blue Collar Total
Fulton/Fullerton Street								
1880	0.0	5.3	5.3	5.2	15.8	31.6	52.6	84.2
1900	7.1	0.0	14.3	0.0	21.4	35.7	42.9	78.6
1920	0.0	7.0	15.8	0.0	22.8	15.8	61.4	77.2
1940	0.0	1.5	10.8	4.6	16.9	18.5	64.6	83.1
Wylie Avenue								
1880	11.4	10.0	11.4	0.0	32.8	38.6	28.5	67.2
1900	4.1	12.2	20.4	8.2	44.9	12.2	42.9	55.1
1920	3.3	13.0	5.4	1.1	22.8	7.6	69.5	77.1
1940	2.0	3.1	5.1	0.0	10.2	12.2	77.6	89.8

**Table 10: Occupation Categories Represented in Fulton/Fullerton Street and Wylie Avenue Sample Blocks
Based on Census Data**

White Collar Occupation				Blue Collar Occupation		
Technical/ Professional	Proprietor/ Manager	Clerical/Sales/ Routine Non- Manual	Other	Craft/Skilled Labor	Semi-Skilled & Unskilled Labor	
doctor/doctress	cigar maker	bookkeeper	minister	machinist	brick maker	bath house worker
professor	boarding house proprietor	drug clerk	writer/ author	masseuse	hotel bellhop	construction
chemist	grocer	stenographer	musician	butcher	porter	coal miner
alderman	contractor	railroad mail clerk	artist	hatter	servant	launderer
ward constable	commission merchant	advertising clerk	sexton	tinner	teamster/ roader	janitor
county treasurer	carpet dealer	grocery clerk	promoter	carpenter	railroad oiler	usher
policeman	manufacturer of machinery	salesperson	actor	painter	boot black/shoe shiner	city sweeper
teacher	store keeper	insurance sales	singer	stencil cutter	rubbish hauler	dish washer
nurse	saloon keeper/ liquor dealer	telephone operator		barber	stable hostler	domestic
fireman	restaurant proprietor	photo agent		cook	parking attendant	elevator operator
	confectionary proprietor	clerk		iron moulder	tailor presser	night watchman
	hotel manager	office abstractor		seamstress/ dressmaker	steel mill wire puller	house keeper
	proprietor- wholesale barber supplies	typist		tailor/tailoress	chauffer	mill laborer
	huckster/ peddler	receptionist		auto mechanic	bowling pin setter	butler
	collector			railroad conductor	rolling mill man	WPA laborer
	candy store (owner?)			construction foreman	stationary engineer	CCC sprayer
				stone mason	steward/ stewardess	
				boiler maker	varnisher	
				electrician	rubbish hauler	
				locomotive engineer	Car washer	
				railroad brakeman	window washer	
				electroplater	glass packer	
				driller	delivery man	
				printer	brick layer	
				bridge builder		
				brass fitters		
				bakery designer		
				cement finisher		
				confectioner		
				bartender		
				livery stable keeper		
				decorator		
				jeweler		
				beautician		
				roofer		

Economically, the two study blocks were still dominated by Blue Collar workers (55.1-78.6%), however, on Fulton/Fullerton Street the number of residents holding White Collar jobs increased by 5.6% to a total of 21.4% since 1880, while the number of White Collar jobs in the Wylie Avenue group, increased by 12.1% to a total of 44.9%. The greater increase in White Collar jobs among the Wylie Avenue study group may reflect the increased presence of the Eastern European Jewish immigrants, many of whom were listed as cigar manufacturers, store keepers, peddlers, store clerks, and bookkeepers, as well as sales people. Other notable White Collar occupations listed in the 1900 study groups included an actor, musician, artist, promoter, contractor, as well as the more typical school teacher, physician, chemist, minister, aldermen, etc.

With the increasing number of White Collar jobs represented in the two study blocks in 1900 came a proportional decrease in the total number of Blue Collar job listings. The number of semi- and unskilled labor jobs was the same in both study groups at 42.9%. However, between 1880 and 1900, the number had risen 14.4% among the Wylie Avenue group while it decreased 9.7% among the Fulton/Fullerton Street group, possibly reflecting the increased presence of migrant Black residents, most of who moved to the North in search of factory jobs (Glascoe 1986).

1920

In the 1920 census, the vast majority of the 199 residents in the two study blocks (79.3-83.3%) were listed as American born, 70.5-76% of whom were Black, primarily from the South or born of Southern parents. This represented a 70.5% increase in the number of Blacks in the Fulton/Fullerton study group since 1900 and a 63.5% increase in the Wylie Avenue group, where Black residents had been recorded in fewer numbers since at least the 1880s.

Those emigrating from Western European countries had decreased from a high of 23.7-47.9% in 1880 to 0-3.8% in 1920. Of course, many native-born residents were of Western European ancestry, but also many had Eastern European antecedents and by 1920, the Eastern Europeans were the second most dominant immigrant group (5.8-7.8%) occupying the two study blocks. From the inclusion of a line item designated as “mother tongue” in the 1920 census, it is confirmed that almost all of the Eastern Europeans living in the two study blocks that year were Jewish, which coincides with Reed’s (1914) observations that the greater Jewish community of Pittsburgh first became established in the Hill District. In the 1920 census, however, immigrants from Middle East – predominantly Syria, and to a lesser extent, Palestine, and Turkey -- surpassed the immigrant Eastern European Jewish population in the Wylie Avenue study block; no Middle Eastern immigrants were listed in the Fulton/Fullerton study block. This reflects the beginning of the general relocation of the Jewish population east to the Squirrel Hill section of Pittsburgh, where they still maintain a strong community presence today. A small group (1.4-2.5%) of immigrants from other miscellaneous countries (i.e., Italy, Canada, and Mexico) also was represented in the 1920 census for the two study blocks.

Despite the similar numbers and (dominance) of Black residents within both study blocks, variable patterns were observed with regard to occupation types. On Fulton/Fullerton Street, the proportion of residents holding White Collar jobs versus those listing Blue Collar jobs remained relatively static between 1900 and 1920. For the same period, the Wylie Avenue study block shows a marked decrease in the number of residents holding White Collar jobs (36.7 to 22.8%) and a substantial increase in the number of Blue Collar positions (55.1 to 77.1%). Within the latter category, semi- and unskilled jobs increased over 26% and craft and skilled labor jobs decreased over 5.5% since 1900 within the Wylie Avenue study block.

1940

In the 1940 census, virtually no Western or Eastern European immigrants were listed among the 273 residents in the two study blocks. A small number of immigrants from Middle Eastern Syria (1.2-3.6%) were counted among the residents in both study blocks. Equally small numbers of Italians and Cubans (combined total of 2.5%) were listed on Fulton/Fullerton, while a more sizeable Italian population (18.7%) occupied the Wylie Avenue study block. Parents' birthplaces were no longer being documented at the time of the 1940 census. While the percentage of Black residents in the Wylie Avenue group soared to 91.3%, up from 76% in 1920, their presence on Fulton/Fullerton Street showed a decline by nearly the same percentage (from 70.5% in 1920 to 53.6% in 1940), clearly indicating a displacement by Italian and Syrian immigrants. Also, by 1940, there was no longer a prominent Jewish presence within the study blocks specifically, or the Hill District, more generally, as most Jews had relocated to the Squirrel Hill section of the city beginning in the 1920s.

There was a significant drop in the frequency of White Collar occupations among residents in both study blocks (from 22.8% to 16.9% on Fulton/Fullerton Street and from 21.7% to 10.2% on Wylie Avenue). While some of these numbers may reflect the increased presence of Blacks residents, who generally held semi- and unskilled positions, the primary reason may be more related to the timing of the census near the end of the Great Depression. A substantial 64.6-77.6% of the Blue Collar positions held by residents in the two study blocks were semi- and unskilled jobs consisting mainly of steel workers, unspecified laborers, domestic help, and waiters/waitresses.

Summary

The collected census data for the Fulton/Fullerton Street and Wylie Avenue study blocks reflects trends similar to those observed for the 18 individually researched properties with regard to patterns of race, ethnicity, and occupation. The Project Area during the first several decades of settlement beginning in the late 1840s consisted almost entirely of working class Euro-Americans or Western European immigrants (primarily Irish, Welsh, English, or German). In the 1880 census, African-Americans were present, but in comparatively small numbers and nearly all were Northern (mainly Pennsylvania) born. Relatively few Eastern European immigrants (mostly ethnic Jews) were listed in the 1880 census. Over the next several decades, both groups had increased their numbers significantly within the neighborhood, with Blacks largely coming from the Deep South, and Eastern European Jews emigrating primarily from Russia, Poland, Romania, and Hungary.

By the early 1900s, the Hill District had become a major center for the city's Jewish population, many of whom operated small businesses such as cigar making, peddling, retail grocery sales, etc. or who worked as salespeople, clerks, bookkeepers, etc. in these or similar businesses. The Hill District also became home to the largest percentage of Blacks in the city, with the Lower District described as the most densely inhabited area and home to "the most disadvantaged of the disadvantaged" (Glascoe 1986). A comparatively small percentage of African-Americans within the study blocks operated their own businesses, first as barbers/hairdressers, and later as pool room operators, printers, plasters, decorators, jewelry proprietors, hotel owners, doctors, etc. However, most of the city's Black residents came from the Deep South during the Great Migration in the early twentieth century and were forced to accept jobs as unskilled laborers in the iron and steel industry, on road construction crews, or as service industry workers (e.g., porters, janitors, chauffeurs, laundresses, waiters/waitresses, servants, etc.), fueled by racial repression and restrictive segregation policies.

Other immigrant groups also were counted among the residents beginning with the 1920 census, such as those emigrating from Italy, the Middle East (Syria, Turkey, Palestine), Canada, Mexico, China, and the Caribbean islands (Jamaica, Cuba, West India), but were present in significantly fewer numbers. By the

time of the 1940 census, the Black population accounted for approximately 91% of residents listed in the Wylie Avenue sample block and approximately 54%, in the Fulton/Fullerton Street sample block. By that time, much of the sizable Jewish population had vacated the Hill District in favor of the Squirrel Hill neighborhood to the east, where the major portion of the city's Jewish population currently resides. After World War II, city "urban renewal" efforts in areas classified as blighted slums resulted in the displacement of some 1,500 Black families (approximately 8,500 individuals) from the Lower Hill District (including the Project Area), resulting in the permanent destruction of the social fabric of this once culturally-rich section of Pittsburgh.

Phase I Archaeological Survey

Five trenches were excavated during the Phase I archaeological investigations of the Lower Hill District Redevelopment Project between August 27 - 31, 2012 (Figure 46). All of the trenches were placed within Lot 2-C-300, an active asphalt parking lot. This portion of the APE exhibited the highest potential for containing buried archaeological deposits. The trenches were excavated along the eastern boundary of the lot to allow continued parking operations while fieldwork was performed.

Based on the background research and the thematic study units outlined above, the trench locations were selected to identify specific landscape and cultural features. Trenches 2 and 5 were excavated to find evidence of Gilmore Street and Wylie Avenue, Trenches 1 and 4 were excavated within backyards of domestic buildings, and Trench 3 was excavated to locate the Holy Trinity/German Roman Catholic Church and School. Logistical issues prevented the excavation of a sixth trench at the western edge of the lot.

Historic mapping varies slightly in the representation of the street names and addresses. Prior to the 1923 Hopkins and 1927 Sanborn maps, the street paralleling Crawford Street to the west was known as Fulton Street. After those dates, the street name became Fullerton. Street addresses along Fulton Street north of Gibson Street were ascribed to the 20 and 30 block of the street prior to 1905. Between 1905 and 1910, street addresses in that same section were attributed to the 700 block of Fulton. After 1910, the address where once again listed as the 20 and 30 block of Fulton/Fullerton Street.

The 1872 Hopkins map shows the footprint of Trench 1 within the empty portion of a lot owned by *R. Campbell*. A single building is located on the eastern portion of parcel along Crawford Street (Figure 47). The small square block was first identified on the 1828 Darby map of Pittsburgh and an 1855 map shows the block divided into six lots (see Figures 8 and 11). The property was later owned by *J. Flynn* in 1890 and identifies the building as frame (Figure 49). By 1893, the frame structure was razed and a three-story brick structure along Fulton Street and a two-story frame structure near Crawford Street were built on the parcel (Figure 50). Trench 1 appears to be located in the footprint of the brick building. The 1923 Hopkins map identified the lot owned by *C. V. Branch* (Figure 51). Subsequent historic mapping and aerials show the parcel remained unchanged through 1951 (Figure 52 and Figure 53). By 1957, historic aerials show the area devoid of any structures.

The 1872 Hopkins map shows the footprint of Trench 2 within unnamed alley. The alley is first identified on the 1828 Darby map of Pittsburgh (Figure 7). Subsequent mapping identify it as Sides Alley (1835), Whiteside Alley (1855), Gibson (1890), and Gilmore (post 1900) (see Figure 10). The recorded width of the alley was 20 ft. It connected Fulton/Fullerton and Crawford streets (Figures 47-53).

The 1872 Hopkins map shows the footprint of Trench 3 spanning two lots. The southern half is between two buildings owned by the German Catholic Church, while the northern half is in the empty portion of a lot owned by *H. Rea* (Figure 47). The rear church building was razed by 1884 and the Holy Trinity School built on the location (Figures 48-49). The three-story brick building with basement had a cupola on the southern elevation. By 1893, the northern parcel was transferred to *H. Rea Jr.* and a small frame building built near the footprint of Trench 3 (Figure 50). The remainder of the parcel had four three-story brick row houses along Crawford and three-story brick store fronts along Fulton Street. The parcels and buildings remained unchanged until the 1957 demolition (Figures 51-53).

The 1872 Hopkins map shows the footprint of Trench 3 within a lot owned by *Church* with three buildings along Crawford Street (Figure 47). By 1884, the entire block along Crawford Street is owned by *Bailey Ward & Hough* (Figure 48). The three-story buildings (probable row houses) facing that street are brick and a small alley separates the parcels from the *Mount Olivet M.E. Church* along Fulton Street. The trench footprint appears to be near the rear of the row houses. By 1890, the parcel facing Crawford is owned by *J. Weber* and contains four dwellings (Figure 49). No substantial developments occurred over the next six decades with the exception of property ownership until the church along Fullerton (Fulton) Street and five row houses along Crawford were razed by 1951 (Figures 51-53).

Wylie Avenue is first identified on the 1855 map of Pittsburgh and the 1872 Hopkins map shows the footprint of Trench 5 within the roadbed. Subsequent historical mapping continue to show the trench location within the street. The recorded width of the Wylie Avenue was 50 ft (Figures 47-53).

Three sites were identified during Phase I survey based on the recovery of historic artifacts and features. The 29 Fulton Street site was identified within Trench 1, the Holy Trinity Church and School site was identified within Trench 3, and the 88-90 Crawford Street site was identified within Trench 4. All sites were recorded according the historic lot number as recorded on the 1893 Hopkins map. A possible manhole was identified in Trench 2, located within Gilmore Street and a portion of Wylie Avenue was identified in Trench 5. Based on consultation with the PHMC, these features were not identified as archaeological sites.

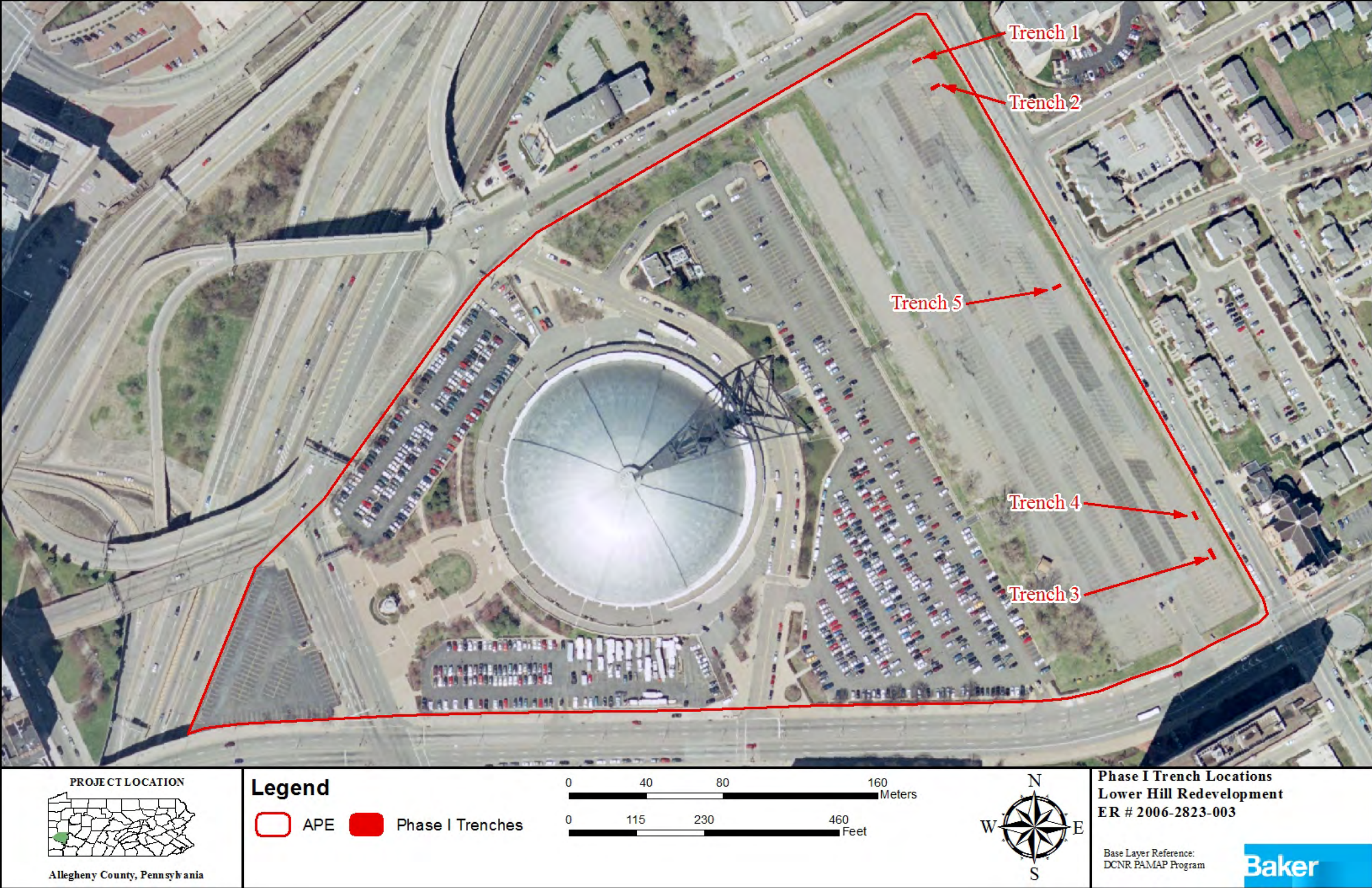


Figure 46: Aerial photograph of the Project Area showing the locations of the Phase I trenches. APE is shown in red.

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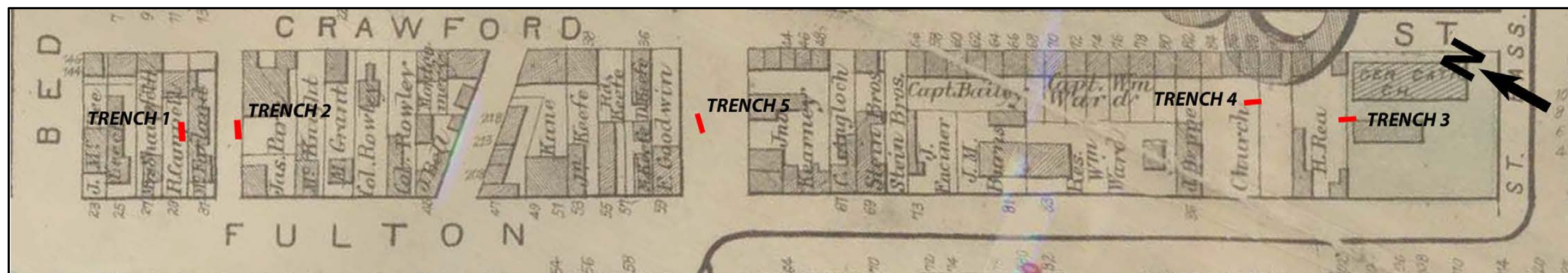


Figure 47: Portion of the 1872 map of Pittsburgh showing the location of Phase I trench excavations.

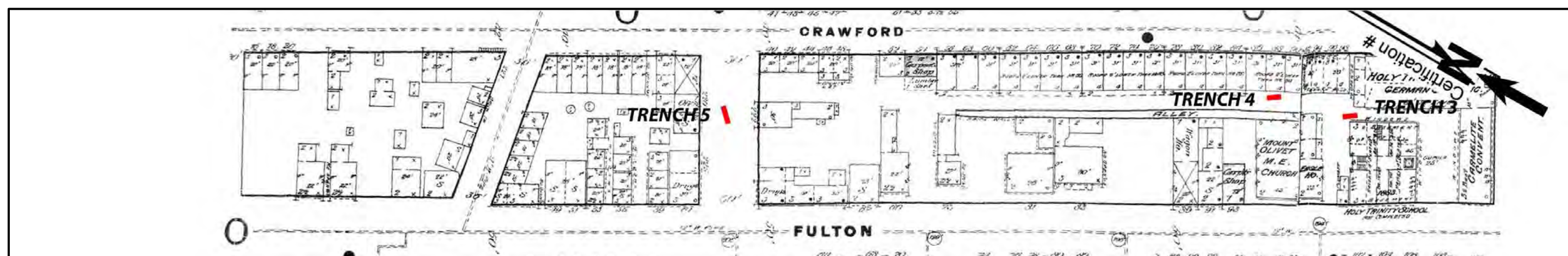


Figure 48: Portion of the 1884 map of Pittsburgh showing the location of Phase I trench excavations.

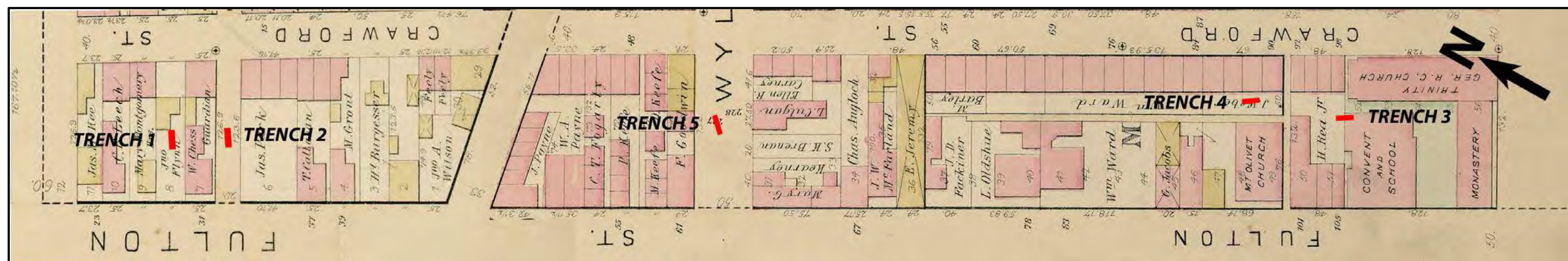


Figure 49: Portion of the 1890 map of Pittsburgh showing the location of Phase I trench excavations.

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Figure 50: Portion of the 1893 map of Pittsburgh showing the location of Phase I trench excavations.

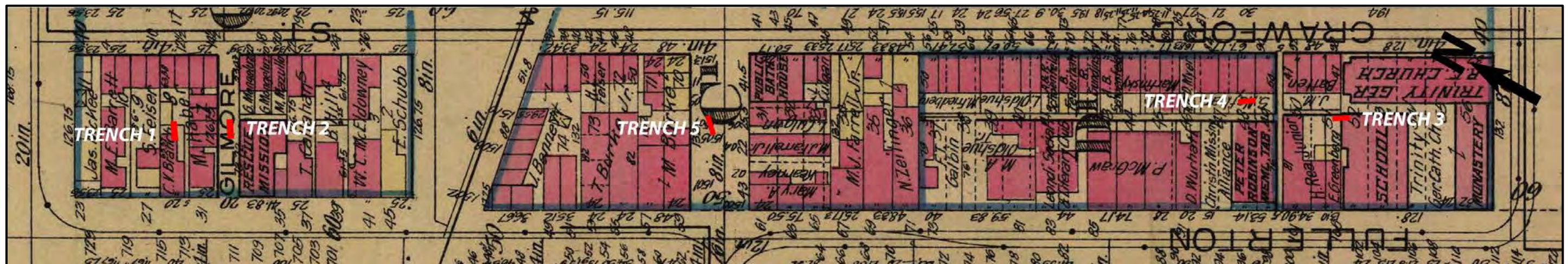


Figure 51: Portion of the 1923 map of Pittsburgh showing the location of Phase I trench excavations.

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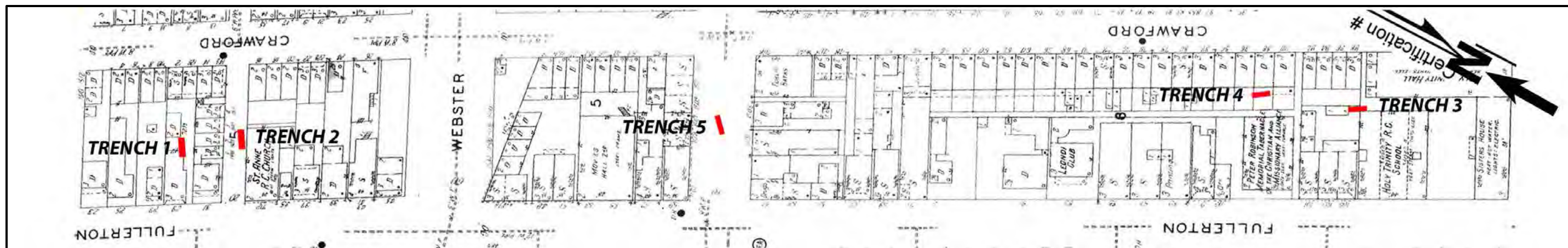


Figure 52: Portion of the 1927 map of Pittsburgh showing the location of Phase I trench excavations.

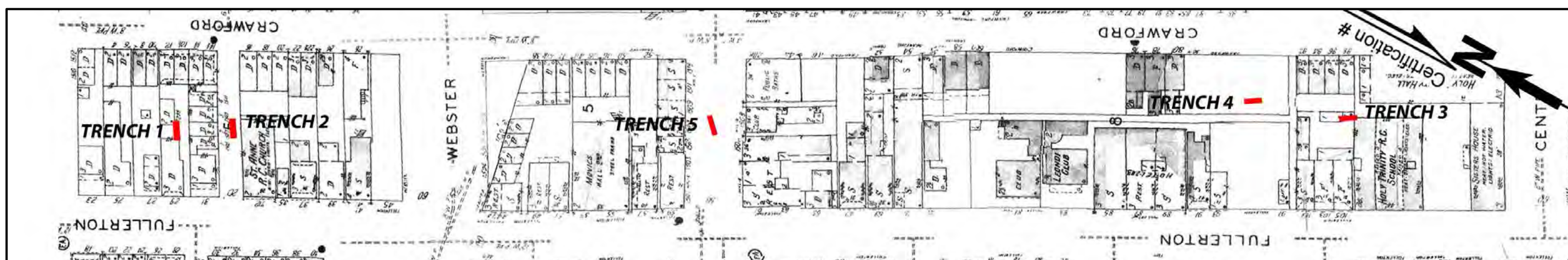


Figure 53: Portion of the 1951 map of Pittsburgh showing the location of Phase I trench excavations.

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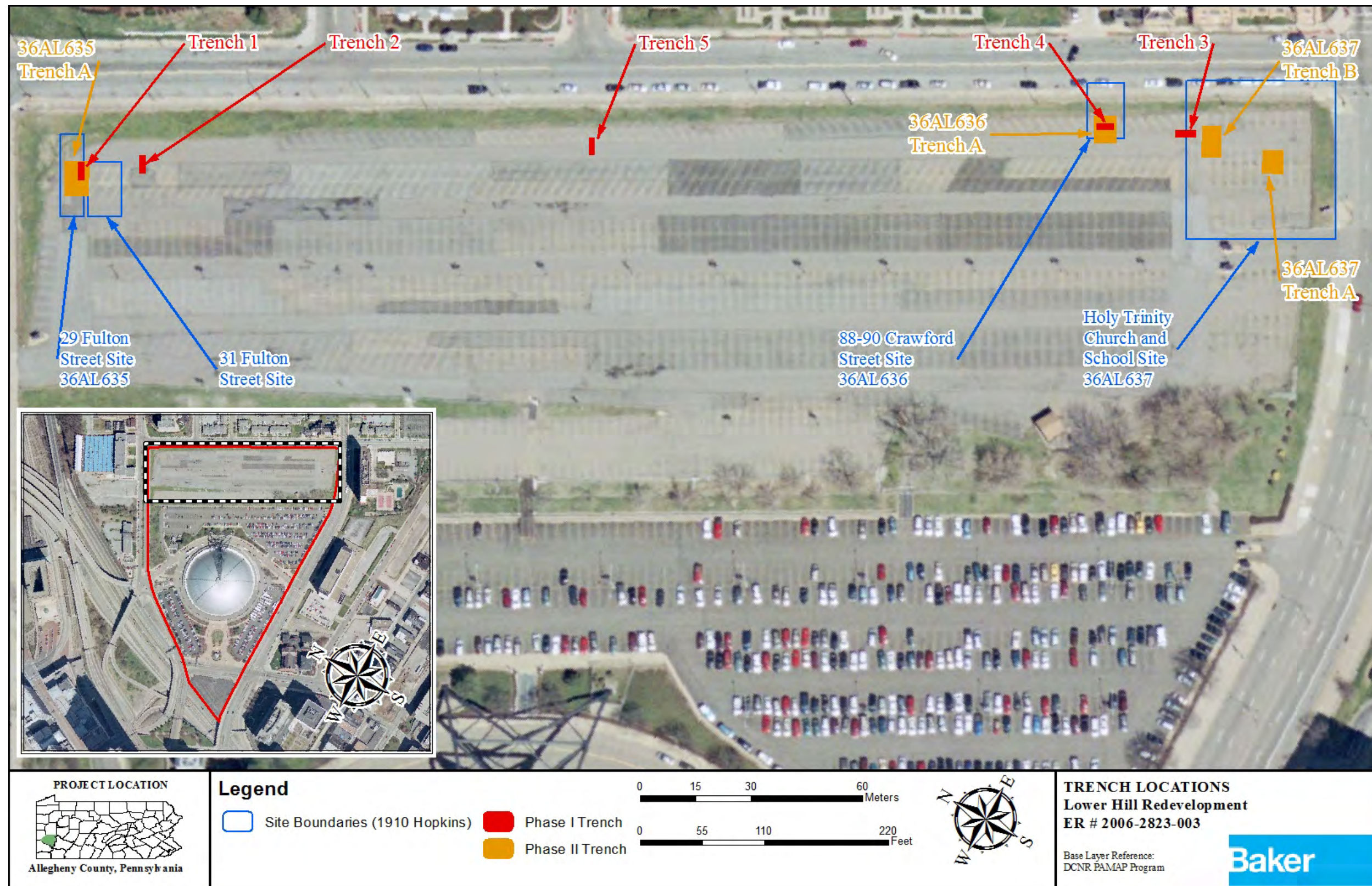


Figure 54: Aerial photograph of Melody Tent Lot showing the locations of Phase I trenches, Phase II trenches, and identified archaeological sites.

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Phase II Archaeological Survey

The Phase II archaeological survey focused on three archaeological sites identified during the Phase I survey. These sites were recorded in the PASS files as the 29 Fulton Street site (36AL635), the 88-90 Crawford Street site (36AL636), and the Holy Trinity Church and School site (36AL637). During the course of the Phase II investigations, a fourth site, the 31 Fulton Street site (site number pending) was identified. In total, four trenches were excavated mechanically during the Phase II survey, including one each at the 29 Fulton Street and 88-90 Crawford Street sites and two at the Holy Trinity Church and School. Figure 47 illustrates the location of the Phase I and Phase II trenches as well as the site boundaries based on the 1910 Hopkins Pittsburgh Estate and Plate map. The following sections describe the stratigraphy, cultural features, and artifacts recovered from both the Phase I and Phase II efforts.

29 Fulton Street Site (36AL635)

OVERVIEW OF SITE

The 29 Fulton Street site is situated in the northeastern corner of Lot 2-C-300 near the intersection of Crawford Street and Bedford Avenue within an asphalt parking lot at an elevation of 284 m (932 ft) amsl (Figure 46). Based on the boundaries of the historic lot (Hopkins 1910), the site area measures approximately 140.76 m² (1,515.13 ft²).

The site was identified during the Phase I portion of the survey based on the identification of cultural features and the recovery historic artifacts in Trench 1. Trench 1 measured approximately 4.5 m (14.8 ft) in length (E-W) by 1.6 m (5.3 ft) in width (N-S), and was excavated to a maximum depth of 1.6 m (5.3 ft). UTM coordinates for the southwest corner of Trench 1 are N4477490.62 E585801.00. Trench 1 had been emplaced in an attempt to identify cultural features related to mid-19th through early 20th century dwellings in a small square block located along Fulton/Fullerton, Gilmore, and Crawford Streets.

Additional features and artifacts were identified after the expansion of the trench during the Phase II effort (Figure 55). The expanded trench was designated Trench A during the Phase II fieldwork. It measured approximately 9.4 m (30.8 ft) in length (E-W) and 6.5 m (21.3 ft) in width (N-S), and was excavated to a maximum depth of 2.5 m (8.2 ft). UTM coordinates for the southwest corner of Trench A are N4477488.07 E585797.02. In total, 61.10 m² (657.67 ft²) of the site were investigated, encompassing 43.4 % of the site area. Figure 56 shows the location of the excavation trenches in relation to the historic building footprints based on the 1910 Hopkins map.

As a result of the expanded trench, an additional archaeological site was identified that pertained to the adjacent historic lot. This site was designated the 31 Fulton Street site, and is described elsewhere in the report.

The 29 Fulton Street site consists of a building foundation with associated structural elements, a short-term use historic dump, a 1958 demolition episode that capped the site, and an intrusive modern utility trench. In addition, three strata were identified, including one natural soil horizon as well as two anthropogenic horizons related to the modern use of the site area as a parking lot. Table 11 provides a description of stratigraphy and features observed at the site.

STRATIGRAPHY

Three strata were identified during the archaeological investigations of the 29 Fulton Street site. They are labeled in ascending order from oldest (lowest) to youngest (uppermost) and are described below.

Stratum I (Field Designation F5)

Stratum I represents a truncated B horizon consisting of a light yellowish brown (10YR 6/4) silty clay loam with siltstone and manganese inclusions. It was originally identified in Trench 1 during the Phase I investigation. The stratum spanned the entire trench, although portions of the building foundation and historic dump intruded into the stratum in the north and west profiles of Trench 1.

Stratum I was re-identified during the Phase II expansion of the trench. At that point, however, it was determined that the stratum did not occur continuously across the site, limited to the area between the foundations for the 29 Fulton Street and 31 Fulton Street sites. Where it occurred, Stratum I originated at a depth of 22 to 28 cm (8.7 to 11.0 in) below ground surface (bgs). The stratum continued to the base of excavations at a depth of approximately 250 cm (98.4 in) bgs. This deeper portion occurred below the eastern section of the building foundation. No cultural materials were recovered from Stratum I.

Stratum II (Field Designation F4)

Stratum II consisted of a 12 to 18 cm (4.7 to 7.1 in) thick layer of brown (10YR 4/3) gravelly silt loam that extended to an approximate depth of 22 to 28 cm (8.7 to 11.0 in) bgs. The stratum occurred across most of the site area except for the northern portion of Trench A where it was truncated by an electrical utility trench linking existing light poles. Stratum II represents a former gravel parking lot surface for the Arena. According to Raymond Wolowicz (personal communication, March 2013), General Manager of Parking for the Consol Energy Center, a gravel parking lot was in operation until the 1980s when it was replaced by an asphalt surface. All cultural features related to the 29 Fulton Street site were identified below Stratum II.

Stratum III (Field Designation F3)

Stratum III is the uppermost stratum at the 29 Fulton Street site. It consisted of an approximately 10 cm (3.9 in) thick layer of asphalt used as the existing parking lot surface. The stratum extended across the entire site area.

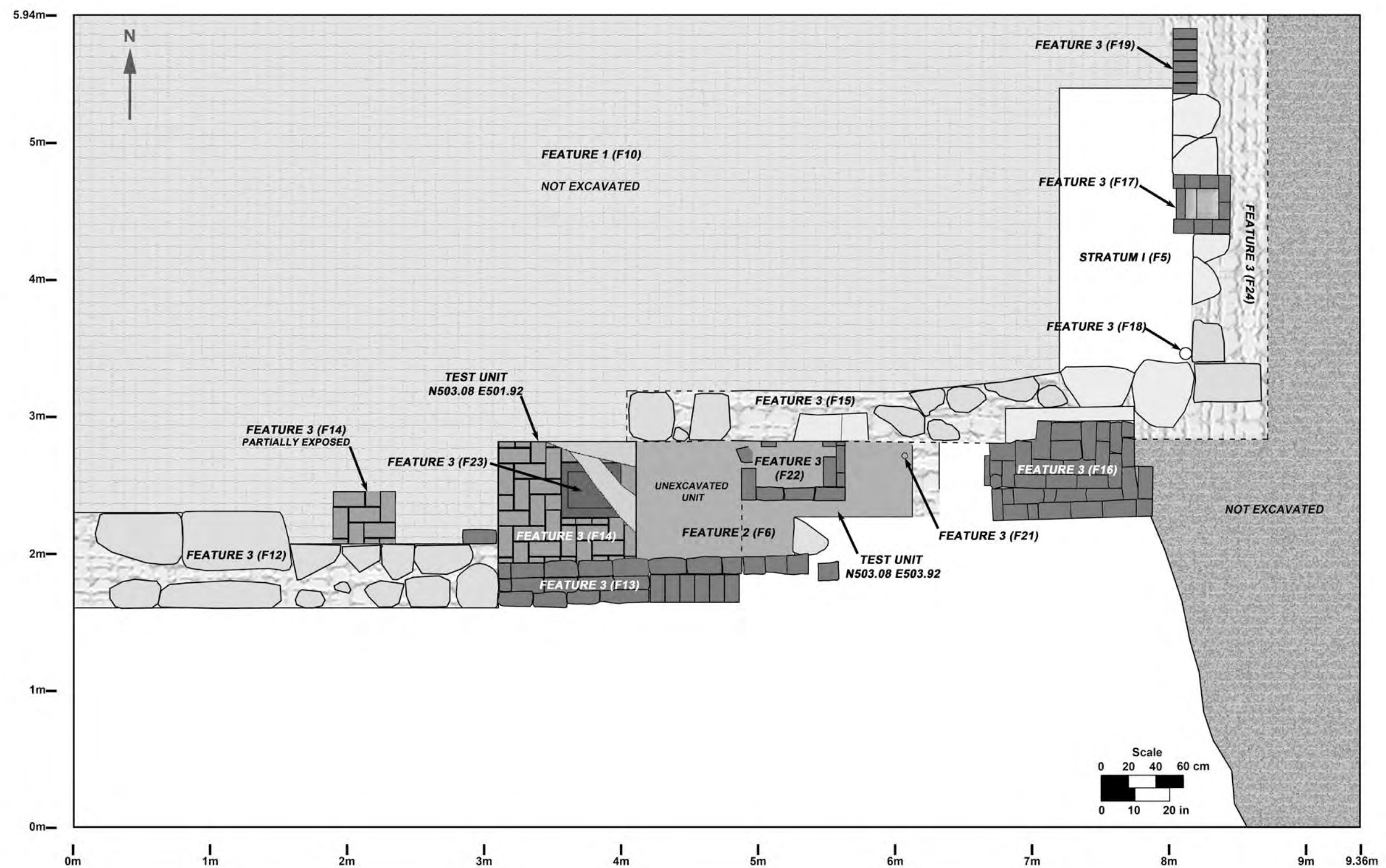


Figure 55: Plan view of Trench A showing the excavated area and identified features.

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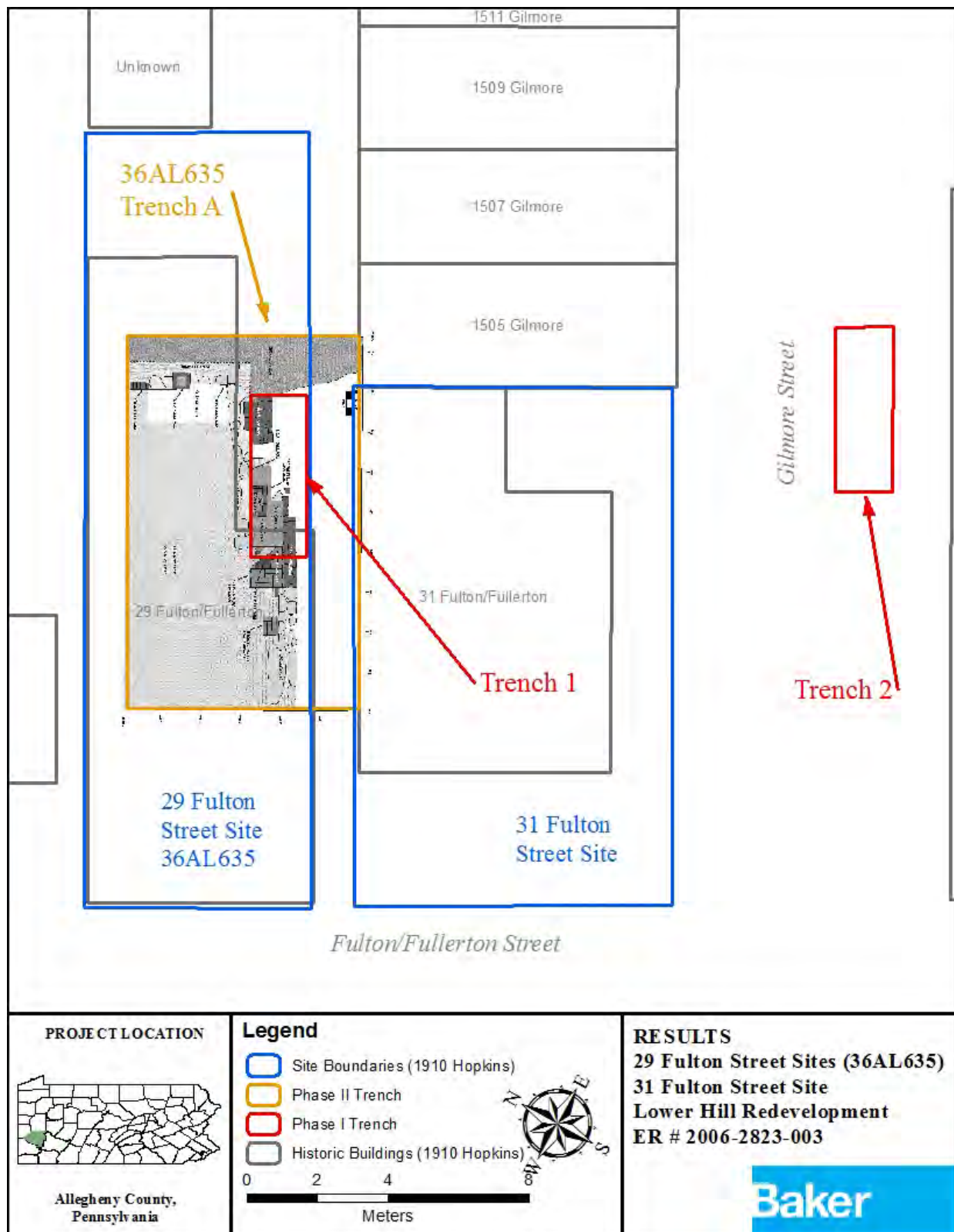


Figure 56: Excavation trench locations in relation to historic building footprints at the 29 and 31 Fulton Street sites.

Table 11: Description of Stratigraphy and Features Observed at the 29 Fulton Street Site (36AL635).

Stratum/ Feature #	F #	Location	Munsell	Description	Stratigraphic Sequence
Stratum III	F3	Trench 1, Trench A	-	Asphalt parking lot	Uppermost level 0 to 10 cm (0 to 3.9 in) bgs
Stratum II	F4	Trench 1, Trench A	Brown (10YR 4/3) to a very dark grayish brown (10YR 3/2) gravely silty sand	Gravel parking lot	Underlies Stratum III 10 to 22/28 cm (3.9to 8.7/11.0 in) bgs
Stratum I	F5	Trench 1, Trench A	Light yellowish brown (10YR 6/4) silty clay loam	B Horizon	Underlies all strata and cultural features 22/28 to 250 cm (8.7/11.0 to 98.4 in) bgs
Feature 1	F8/F10	Trench 1, Trench A	-	Compressed layer of brick and stone from 1958 demolition of nearby buildings including building at 29 Fulton Street	Underlies Stratum II 16to194 cm (6.3 to 76.4 in) bgs
Feature 2	F6	Trench 1, Trench A	Very dark brown (10YR 2/2) to very dark grayish brown (10YR 3/2) silt loam	Short-term use historic dump	Underlies Feature 1 40/44 to 194 cm (15.7/17 to 76.4 in) bgs
Feature 3	F7/F13	Trench 1, Trench A		Brick and mortar wall supported by F12	Underlies Feature 1
	F12	Trench 1, Trench A	-	Rubble masonry wall representing the southern foundation of the front of building at 29 Fulton Street	Underlies Feature 1
	F14	Trench A		Brick floor in western basement of the building at 29 Fulton Street	Underlies Feature 1 and Feature 2
	F15	Trench A		Rubble masonry wall representing the southern foundation of the rear of building at 29 Fulton Street	Underlies Feature 1
Feature 3	F16	Trench A		Window sill in rear of building at 29 Fulton Street	Underlies Feature 1, rests on F15
	F17	Trench A		Southern chimney in rear of building at 29 Fulton Street	Underlies Feature 1, rests in F24
	F18	Trench A		Vertical cast iron drainage pipe in southeastern corner of the basement of building at 29 Fulton Street Site	Underlies Feature 1, intrudes into Stratum I
	F19	Trench A		Northern chimney in rear of building at 29 Fulton street. Retains ceramic flue.	Underlies Feature 1, rests in F24
	F20	Trench A		Electrical grounding rod adjacent to F12	Underlies Feature 1, intrudes into Stratum I
	F21	Trench A		Electrical grounding rod adjacent to F15	Underlies Feature 1, intrudes into Stratum I
	F22	Trench A		Brick element adjacent to F15, may represent a planting box	Underlies Feature 2
	F23	Trench A		Drain in brick floor (F14) of basement of the building at 29 Fulton Street	Underlies Feature 2
	F24	Trench A		Rubble masonry wall representing the eastern foundation of the rear of building at 29 Fulton Street	Underlies Feature 1
Feature 4	F11	Trench A		Modern utility trench	Underlies Stratum III

FEATURES

Four cultural features were identified during the archaeological investigations of the 29 Fulton Street site. They include a layer of destruction debris (Feature 1), a historic dump (Feature 2), a building foundation with associated structural elements (Feature 3), and a modern utility trench (Feature 4). The features are described below.

Feature 1 (Field Designations F8 and F10)

Feature 1 represents a discontinuous layer of destruction debris related to the 1958 demolition of this portion of the Lower Hill District for the construction of the Arena (Pittsburgh Sun Telegraph 1958). The feature consisted of an unconsolidated matrix of bricks and stone. A small section of the feature was identified in the north profile of Trench I during the Phase I investigation. It occurred immediately above the building foundation, historic dump and a portion of Stratum I. Additional evidence of Feature 1 appeared during the Phase II expansion of the trench. It was re-identified above the historic dump but also within the building foundation (Figures 57 and 58). Feature 1 extended from approximately 16 cm (6.3 in) bgs to a maximum depth of 194 cm (76.4 in) bgs at a brick floor in the interior of the foundation



Figure 57: Photograph of 29 Fulton Street site showing Feature 1, destruction debris, and Feature 3, structural remains, facing southwest.



Figure 58: Photograph of 29 Fulton Street site showing Feature 1, destructional bebris, Feature 2, historic dump, and Feature 3, structural remains, facing south.

(Feature 3). Portions of the feature were removed mechanically to facilitate documentation of the underlying cultural features. Two artifacts, fragments of a slate fireplace mantle were recovered in Feature 1.

Feature 2 (Field Designation F6)

Feature 2 represents a short-term use historic dump. It consisted of very dark brown (10YR 2/2) to very dark grayish brown (10YR 3/2) silt loam. Initially, an edge of the feature was identified in the north wall of Trench 1 during the Phase I survey. Sections of brick and cut stone pertaining to the aforementioned foundation were also uncovered. At that point, it appeared that Feature 2 occurred in the interior of the foundation, although it remained inconclusive due to the limited areal extent of the trench. Expansion of the trench during the Phase II investigation uncovered additional portions of Feature 2 and Feature 3.

The Phase II trenching revealed that Feature 2 occurred in the interior of the building's foundation (Figure 58). The horizontal extent of the feature was constricted partially by a set of parallel walls comprising the southern foundation of the building (Feature 3). The layout of these parallel walls suggests an entryway into the basement from the building's exterior and a convenient access point for dumping trash. The 1893 and 1905 Sanborn fire insurance maps also depict an opening at this location. The exposed portion of the feature measured about 292 cm (115.0 in) in length (E-W) and between 88 and 90 cm (34.6 to 35.4 in) in width (N-S). In addition, the feature appeared to continue into the western chamber of the building's basement.

Feature 2 occurred beneath a thin layer of Feature 1 at approximately 40 to 44 cm (15.7 to 17.3 in) bgs. It extended to a depth of 194 cm (76.4 in) bgs at the base of Feature 3, where it terminated at a brick floor in the interior of the foundation (Figure 61). The uppermost 4 cm (1.6 in) in the eastern portion and 84 cm

(33.1 in) in the western portion of the feature were removed during the mechanical excavation of Trench A. Subsequently, two 100 x 88 cm (39.4 x 34.6 in) test units were hand-excavated in extant portions of the feature. One test unit removed between 53 and 71 cm (20.9-28.0 in) of the western section of the feature until F14 was uncovered (Figure 59). The second unit removed between 44 and 50 cm (17.3-19.7 in) of the eastern section, at which point a rectangular brick element (Field Designation F22) associated with the southern foundation (F15) was encountered (Figure 60). No discrete strata were identified during the excavation of the feature.

A total of 1,902 historic artifacts, 221 faunal elements, and a single peach were recovered at the 29 Fulton Street site. All but two of the historic artifacts were recovered in Feature 2 as well as the peach pit. All of the faunal elements were recovered in Feature 2. These are discussed below in the Historic Artifacts and Faunal Material sections.

Feature 3 (Field Designations F7, F12-F24)

Feature 3 represents the foundation walls and associated architectural elements of the building at 29 Fulton/Fullerton Street. An approximately 50 cm (19.7 in) section of the southern foundation wall was uncovered in the northwest corner of Trench I during the Phase I survey. Expansion of the trench during the Phase II revealed additional sections of the foundation (Figures 57 and 58). In plan, the building was rectangular with a rear el wing. The long axis of the building was east to west. Three masonry walls were exposed, including an eastern wall and two southern walls. Excavations uncovered a 388 cm (152.8 in) section of the eastern wall and an 840 cm (330.7 in) section of the southern walls along with the southwestern corner of the building. The top of the foundation walls occurred at a depth ranging from 20 to 34 cm (7.9 to 13.4 in) bgs and their bases ranged between 194 and 224 cm (76.4 to 88.2 in) bgs (Figure 62). Stratum I occurred below the eastern portion of the foundation. Several architectural elements in addition to the foundation walls comprise Feature 3. They include a basement entryway, a window sill, two chimneys, electrical grounding rods, an interior brick floor, and drains. The individual elements constituting Feature 3 are described below.



Figure 59: Photograph of Test Unit N503.08 E501.92 within Feature 2.

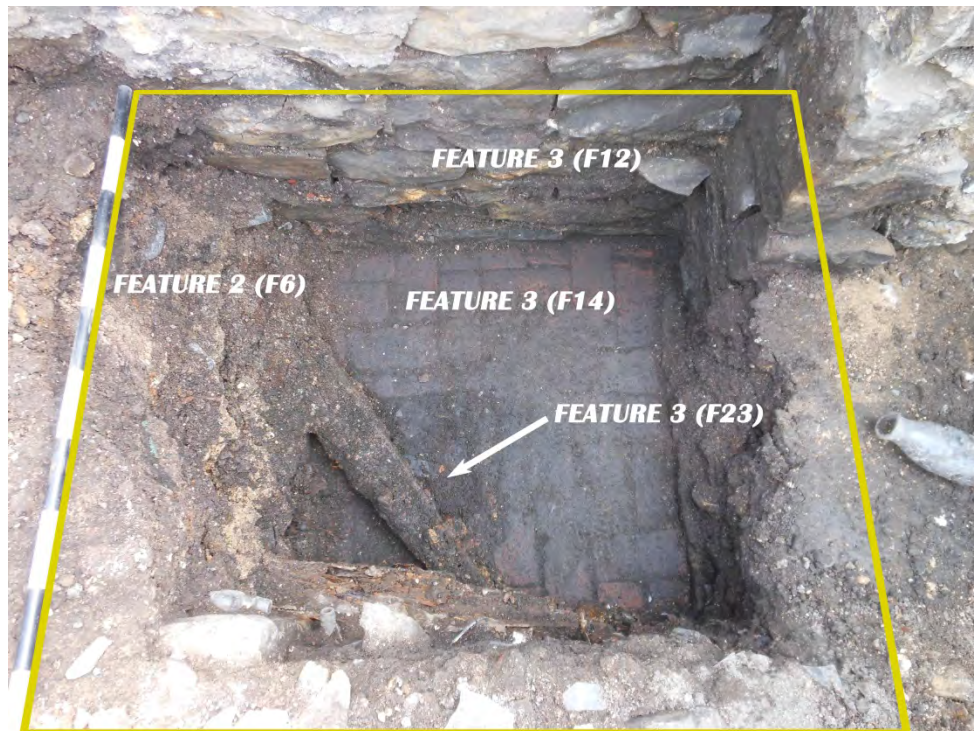


Figure 60: Photograph of Test Unit within Feature 2, showing the brick floor..

SITE 36AL635 SOUTH WALL PROFILE

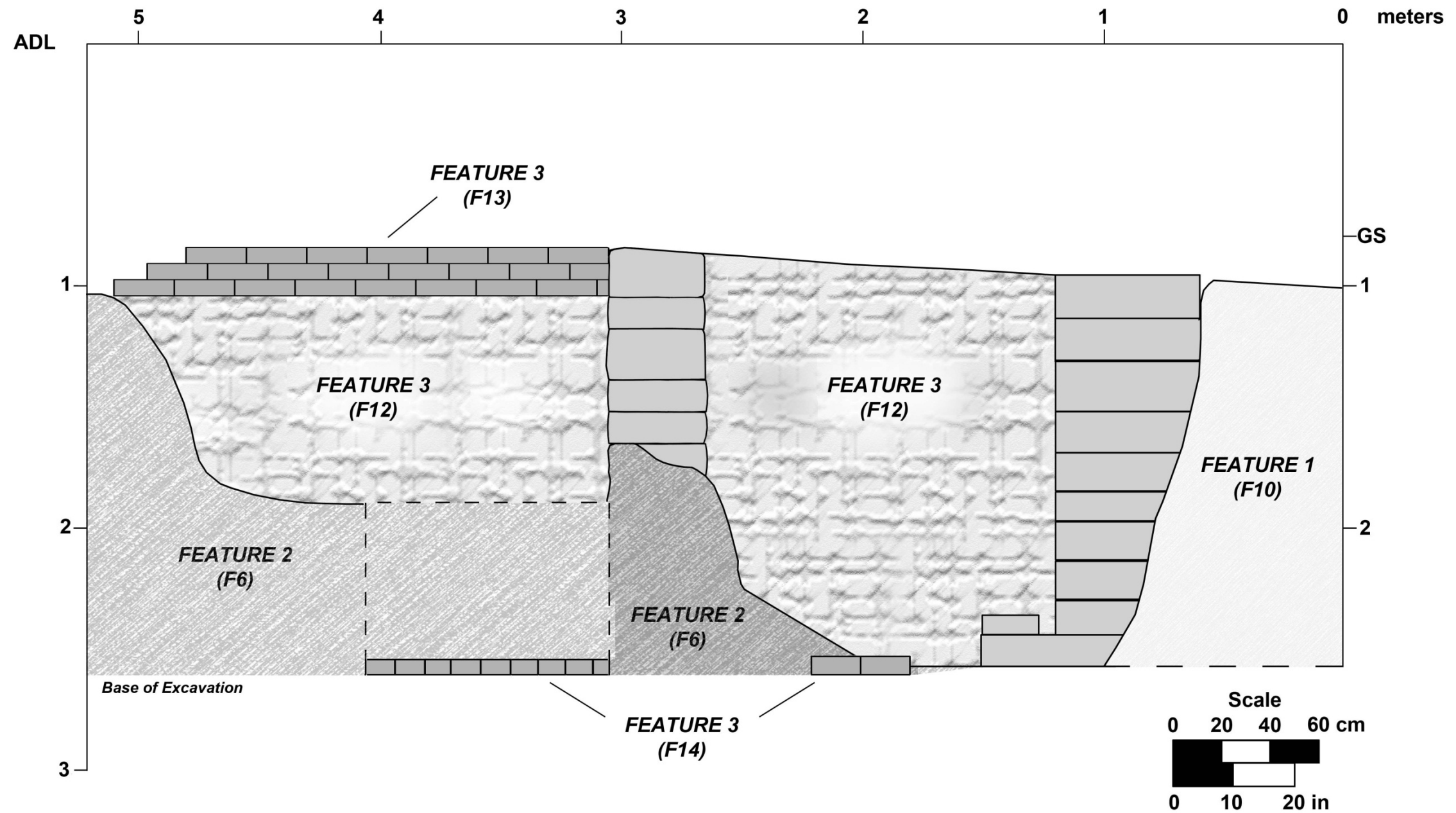


Figure 61: South wall profile of Trench A showing the vertical extent of Features 2 and 3.

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SITE 36AL635 TRENCH A - EAST WALL PROFILE

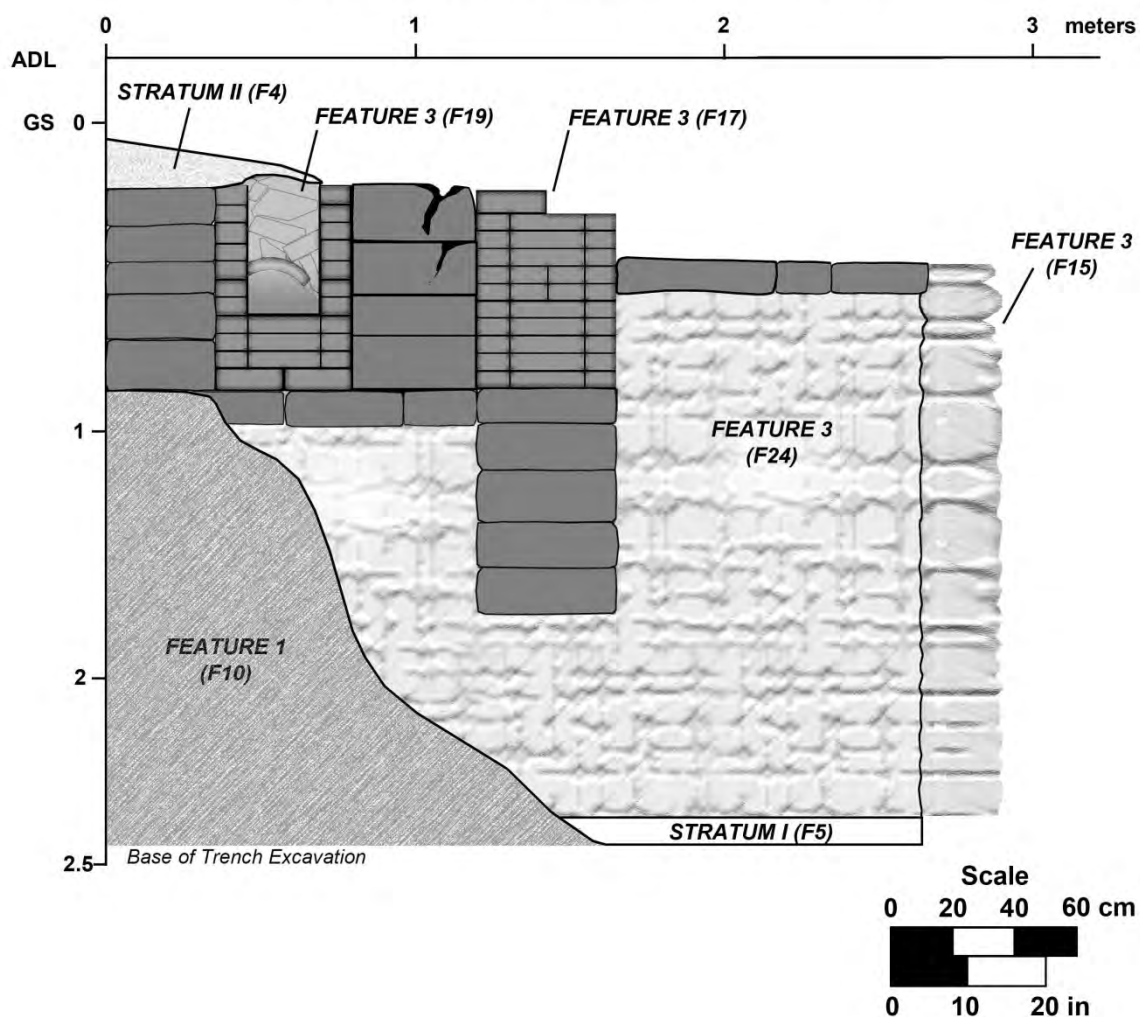


Figure 62: East wall profile of Trench A showing the vertical extent of Feature 3.

As noted, three masonry foundation walls were uncovered (F12, F15, and F24), two of which form the southern foundation (Figure 63). The southernmost wall (F12) provided support for the western portion of the building fronting Fulton/Fullerton Street. The wall consisted of uncoursed rubble except for the upper section, which contained coursed sandstone blocks. A historic streetscape photograph partially showing the front of the building depicts three courses of sandstone blocks above the ground surface (PCPC 1930). The second southern wall (F15) was located 88 cm (34.6 in) north of F12. The two walls paralleled one another for a distance of 134 cm (52.8 in). The gap between these two walls contained Feature 2 and represented the basement entrance. In addition, the paralleling portion of F12 footed a brick and mortar wall (F7/F13) that was three courses wide and three to four courses high. Two sections of F12 were widened for additional load-bearing support, including one possibly for a wooden beam at the basement entryway and another to the west of that location for an undetermined purpose.

Consisting of uncoursed rubble, F15 supported the rear wing of the building. A rear basement window sill (F16) was present on F15 (Figure 64). The sill had a stone slab base overlaid by a course of bricks. The stone slab sat directly on the foundation wall. The sill was bordered by a rectangular brick enclosure. The extant portion of this element was up to six courses high and two courses wide. F24 represents the eastern foundation wall, which also supported the rear wing of the building. The wall contained remnants of two brick chimneys (F17 and F19), each placed within narrow niches in the wall (Figures 65 and 66). The section of the wall containing the chimneys was widened to provide additional load-bearing support. The northern chimney (F19) retained a collapsed ceramic flue liner.

The interior of the foundation contained several architectural elements. A section of a brick floor (F14) was uncovered during the mechanical removal of Feature 1 while another section was identified beneath Feature 2. This floor occurred in the western chamber of the foundation and extended into the basement entryway demarcated by the space between F12 and F15. The section beneath Feature 2 contained a metal drain (F23) (Figure 67). The brick floor did not occur in the rear wing of the building. Instead, that portion of the basement had a dirt floor. The rear wing interior contained a vertical iron pipe (F18) in the southwestern corner of the foundation. The pipe intruded into Stratum I at the base of Feature 3.

Other architectural elements associated with Feature 3 occurred on the exterior of the foundation (Figure 68). Two electrical grounding rods (F20 and F21) were located along the southern wall adjacent to F12 and F15, respectively. In addition, a small un-mortared brick enclosure (F22) was uncovered adjacent to F15 during the excavation of Feature 2. The enclosure measured 76 cm (29.9 in) in length and 44 cm (17.3 in) in width. The enclosure may have served as a small planting box adjacent to the building.

Feature 4 (Field Designation F11)

Feature 4 represents a modern electrical utility trench. It was identified as a linear gravel feature that slanted southwest across Trench A from the northeast corner. The electrical line connects two light poles in the northern part of the Melody parking lot. Excavation in that portion of the trench ceased once the feature was recognized as an existing electrical line, and therefore, the feature was not fully exposed. Based on its direction, the trench impacted portions of Feature 1 and Feature 3 (northeast corner and west foundation wall).



Figure 63: Photograph of the southeast corner of the 29 Fulton Street site showing the identified features, facing southeast.



Figure 64: Photograph showing the window well in the southern wall of the 29 Fulton Street site, facing east.



Figure 65: Photograph showing one of the chimneys (F17) in the east foundation wall of 29 Fulton Street.

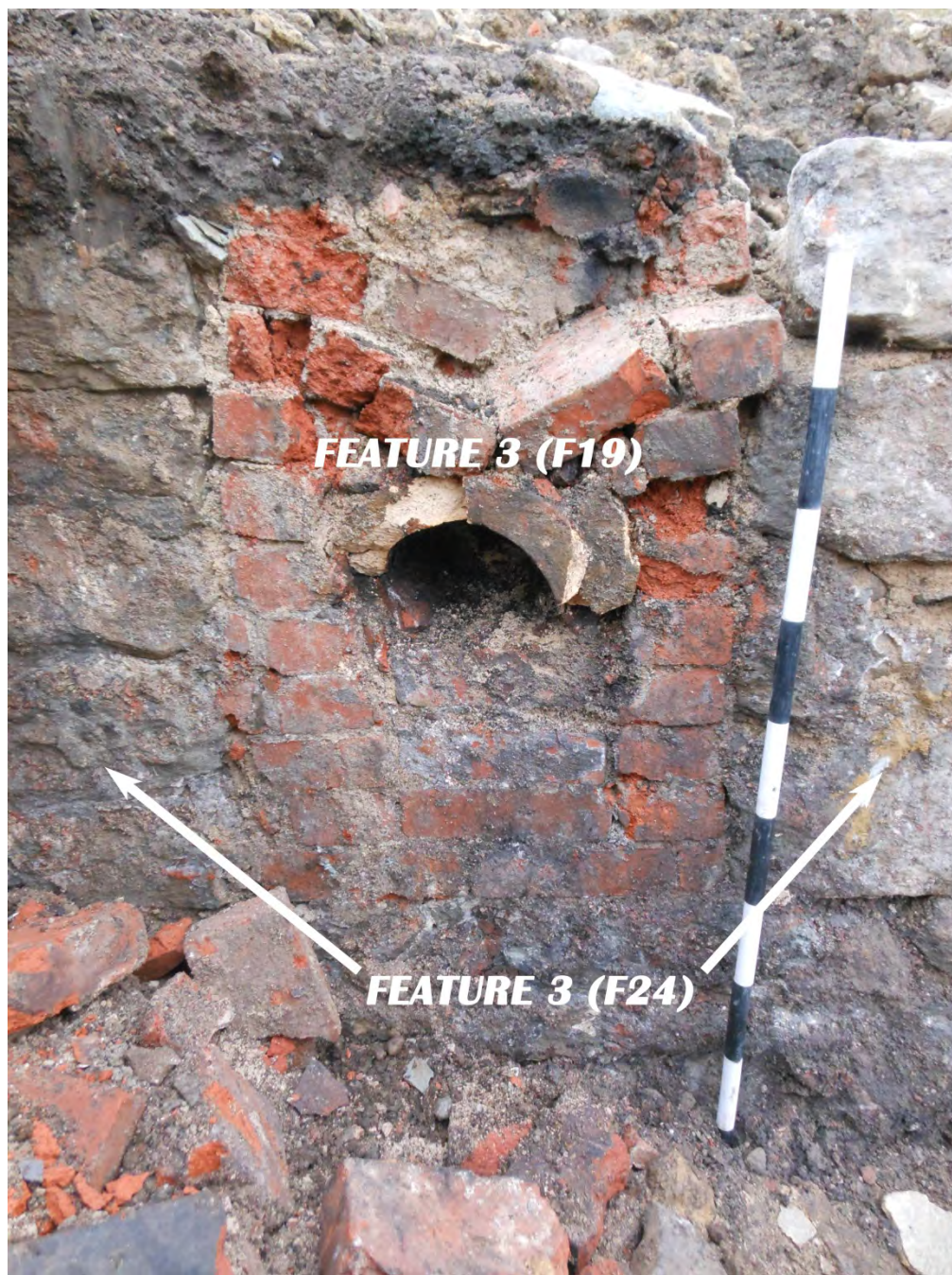


Figure 66: Photograph showing one of the chimneys (F19) in the east foundation wall of 29 Fulton Street.



Figure 67: Photograph of the metal drain (F23) identified beneath Feature 2.

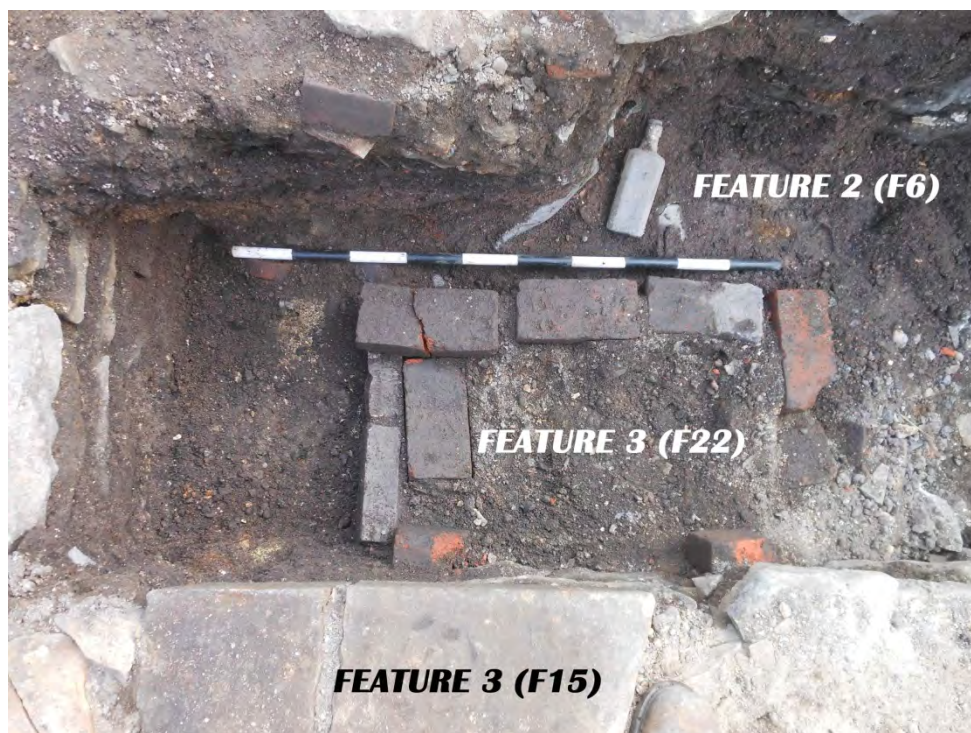


Figure 68: Photograph of Features 2 and 3.

ARTIFACTS AND ECOFACTS

Historic Artifacts

Phase I/II archaeological testing at the 29 Fulton Street site yielded 1,902 historic artifacts. This total includes, in decreasing order of abundance, 1,119 (59%) glass artifacts, 453 (24%) metal objects, 202 (11%) miscellaneous artifacts, and 128 (7%) historic ceramic artifacts.

Glass Artifacts

The glass assemblage consists of 731 container-related fragments (including 6 closures), 331 architectural and furnishing-related elements, 23 tableware fragments, 20 lighting and electrical-related artifacts, 2 miscellaneous artifacts, and 1 kitchenware-related artifact. Eleven (11) unidentified glass artifacts were also collected during the course of Phase I/II investigations. These elements consist of non-diagnostic, colorless-, opaque white-, and cranberry-colored fragments/spalls as well as melted glass and are not further discussed herein.

Container-related Glass Artifacts

The container-related assemblage includes 725 containers or container fragments and 6 closure-related elements. Of the 725 total container elements recovered, 432 were able to be classified according to function. The largest portion of the identified container glass is beverage-related (n=284), with examples of pharmaceutical-related (n=67), toiletry-related (n=47), and food preparation/storage-related (n=21) elements also recovered. An additional 13 containers and/or container elements were classified as miscellaneous and included household chemicals (n=12), and a single ink bottle. A large portion of the container glass assemblage could not be definitively assigned as to function (n=293); however, many elements exhibited diagnostic hallmarks enabling refined chronology.

In addition to this material, six (6) container-related closures were also identified.

Beverage-related Container Glass

The beverage-related assemblage contains, in decreasing order of abundance, 115 alcohol-related bottles or bottle fragments, 103 milk and/or milk bottle fragments, 55 soda bottles, as well as 11 unidentified forms.

The alcohol-related category contains 47 hard liquor, 37 wine/champagne, and 31 beer/ale bottles or bottle fragments. The entirety of the hard liquor bottle assemblage consists of half pint and full pint flask-and/or dandy flask-shaped bottles (n=10) and/or bottle fragments (n=37). The most common finish observed on these bottles was a brandy-type finish. It is likely that the majority of these bottles and/or bottle fragments predate Prohibition (i.e., 1920 -1933) as they are not embossed with the post prohibition text forbidding resale. Identified maker's marks include an "H" in a Triangle used by J.T. and A. Hamilton, Pittsburgh, Pennsylvania between ca. 1900-1943; a square surrounding an "O" that was employed by the Owens Bottle Company between ca. 1911-1929; and a "T" inside an inverted triangle; a mark used by the Turner Brothers Glass Company of Terre Haute, Indiana between ca. 1915-1929. One brand, Gordon's Dry Gin, was identified through an embossed product label that corresponds with a ca. 1920 production date (e.g., Petrich-Guy et al. 2010).

The majority of the wine bottle assemblage (n=22; 59%) is comprised of bottles (n=4) and/or bottle fragments (n=18) that originated from the Pinehurst Vineyard Company of Vina Vista Station, Pinehurst N.C. (Figure 69) A brief article from 1915 appearing in the Volume 29, No. 11 edition of the *Wine and Spirit Bulletin* reads:



Figure 69: Example of Pinehurst Vineyard Company wine bottle recovered from 36AL365

Mr W. H. Reinhart returned from Pinehurst, N. C., after spending two weeks there during the pressing season. The Pinehurst Vineyard Company, located at Vina Vista, N. C., near Pinehurst, pressed hundreds of tons of Scuppernong grapes, making unfermented grape juice and wine; also making unfermented grape juice out of the James grapes, which is a very large, dark grape of the muscadine family and makes a delicious unfermented grape juice as well as wine. The Pinehurst Vineyard Company is owned by the Sweet Valley Wine Company of this city. Mr. Reinhart is very enthusiastic over the prospects in the South. He likes the country and the climate.

As noted, the Pinehurst Vineyard Co. was owned by the Sweet Valley Wine Company. The latter company was located in Sandusky, Ohio and continued in sporadic operation (largely due to the effects of Prohibition) until 1943 with the death of William H. Reinhart. The firm was bought out by the National Distillers Products Corp. and continued through 1954 (*The Blade*, Toledo, Ohio Nov. 25, 1969). With his base in Sandusky, Ohio, it is likely that Reinhart promoted his Pinehurst wines in the immediate major regional markets such as Pittsburgh.

The recovered clear bottles and bottle fragments are all similar in morphology and show evidence of machine-made, usually Owen's method, manufacture (1904 – early 1950s; Jones and Sullivan 1985:38-39). Many are embossed with (or portions of) a stylized “PV” on shoulder and “PINEHURST VINEYARD/COMPANY/VINA VISTA STATION/PINEHURST, N.C./REFILLING PROHIBITED” on body. No maker's marks were observed, however two bottle bases were embossed with a diamond mark containing the embossed “B35.” It is undetermined if this is a formal maker's mark – however a plain diamond mark was used after 1924 by the Diamond Glass Company of Royersford, Pennsylvania.

The remaining wine bottle fragments consist of generally non-diagnostic, dark olive green, body and or body and base fragments. However, one base exhibits a large mamelon indicating production by turn-mold manufacture, employed ca. 1880 – 1910 (e.g., www.sha.org/bottle/bases.htm).

The 31 artifacts (9 of which are complete bottles) comprising the beer/ale-related category consist of brown-, light blue-, light green-, and light aqua-colored bottles or bottle fragments. At least four different brewing companies, and two bottlers, the Pittsburgh Bottling Company and the Southside Bottling Works, were identified in this assemblage. Identified brewers include the United States Brewing Company (Chicago, Illinois; 1889-1955), the Atlas Brewing Company (Chicago, Illinois; 1896-1962), the Independent Brewing Company (Pittsburgh, PA; 1905-1933), and Blatz Beer (Milwaukee, Wisconsin; 1851-1959).

Little published information exists on the plethora of early to mid-20th century bottling companies that once supported the Pittsburgh market. A review of Pittsburgh City Directories indicates that the South Side Bottling Works operated a facility at 2322 Josephine Street minimally between ca. 1915 and 1934. The second bottler, the Pittsburgh Bottling Company, proved somewhat more elusive as no business under that name was listed in the directories; however a business under the guise of the Pittsburgh Bottling House was listed in the directories minimally from ca. 1928 through 1934 at 2154 Webster Avenue, relatively near the current Project Area. Still, reference is made to a fire having damaged/destroyed a “Pittsburgh Bottling Company” building located at 6011 Broad Street in the city's Highland Park area in 1930 (*Pittsburgh Post-Gazette* July 31, 1930 edition) leaving room for doubt as to the relationship between the Pittsburgh Bottling Company and the Pittsburgh Bottling Works.

The next largest class of beverage-related glass is comprised of 103 milk bottles and bottle fragments. The assemblage contains 20 whole specimens (represented by 31 artifacts). The use of bottles for milk packaging was introduced ca. 1886 (Pittman 1987:56). Five company names (represented by 81 artifacts) were noted in the assemblage. These include portions of, or whole bottles from, Rieck's Pure Milk & Dairy (n=66), J.D. Page & Sons Pure Milk & Cream (n = 3), Hermes Grove (n = 10), Davidson's Pure Milk & Cream (n=1), and Wm. Fischer Sweet Home Dairy (n = 1) (Figure 70).

Probably the most prominent of these firms is that of Rieck's. Edward Rieck founded what would eventually become a nationwide dairy concern in 1886 in Pittsburgh, Pennsylvania. With Rieck's entry into the pasteurized milk market in 1896 and, soon thereafter, the ice cream market, the business expanded exponentially. Rieck's offices were established at the corner of Forbes and Stevenson (Scott 1908: 127-128). By 1923, the firm became a majority partner of the newly formed National Dairy Products Corporation. The Rieck name remained influential through 1944, upon Edward Rieck's death. Still, the firm that bore his name would go on for over a decade, only eventually to be phased out with National Dairy's promotion of the Sealtest line by the late 1950s (Fisher 1998:71-81). The Rieck milk bottles recovered from the 29 Fulton/Fullerton deposits typically display evidence of machine manufacture via the press-and-blow method of manufacture that results in a tell-tale valve mark on the bottle base. A process typically used during the manufacture of wide-mouthed food/beverage bottles, it was most commonly employed from the early 1900s through the 1940s (Lindsey 2013).

Pittsburgh City Directories indicate that J.D. Page & Sons Pure Milk & Cream Dairy was established ca. 1927 at 1906 Bedford Avenue. Prior to that time, John D. Page is listed as a grocer as early as 1906 at the same address. In 1927 John D. Page is listed as grocer and dairy, and by 1929, the firm name was formally established. The name continues in the directories until at least 1934; it is not listed in the 1937 directory.

The Hermes-Grove Dairy Company (that became the Liberty Dairy Products Corp. by 1928/1929) was founded in 1919 with the acquisition by the Ohio & Pittsburgh Milk Co. of the Joseph Groves Co. The newly formed company was advertised under the trade name, Hermes-Groves Dairy Co. The Pittsburgh plant was located on the corner of Forbes and Sixth Ave (First National Bank 1925). According to Pittsburgh City Directories, the firm operated until ca. 1930 (PCD 1930; 1931; 1932; 1935). No listing for the successor Liberty Dairy Products Corp. was identified after ca. 1930 as well.

The Sweet Home Dairy Company was located at 4015 Evergreen Road in what then was loosely defined as Pittsburgh's North Side. Under the ownership of William Fischer, the firm appears to have operated between the years ca. 1929 to at least 1934. The firm is no longer listed after 1937; it is not known if the dairy survived into 1935/1936 due to incomplete city directory files (PCD 1920, 1925, 1927, 1928, 1929, 1930, 1931, 1932, 1934, 1937, 1938).

No definitive information could be found with regard to the bottle embossed with "Davidson's Pure Milk & Cream." The firm does not appear in any of the Pittsburgh City Directories, implying that it may not be a local concern. An H.Z. Davidson is listed in the Pittsburgh area in the 1915, 1917, and 1919 of the *Monthly Bulletin of the Pennsylvania Department of Agriculture: Dairy and Food Bureau* report; but no corroborating evidence could be found.

Many of the milk bottles noted in the assemblage were manufactured for the various dairy concerns by J.T. and A. Hamilton of Pittsburgh. The heel of many of the milk bottles (n=11) is embossed with "J.T. & A.H. 14", a mark traditionally attributed to this glass company (Hawkins 2009:243-248). The firm was



Figure 70: Sample of milk bottles recovered from 36AL365.

a) J.D. Page & Sons milk bottle; b) Davidson's Pure Milk & Cream bottle; c) William Fischer's Sweet Home Dairy bottle; d-e) two variants of Rieck's Dairy bottles

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extant from ca. 1879 – 1943. Interestingly, at least between 1895 and 1932, the firm is specifically listed in the city directories as a producer of glass milk bottles in the city (PCD 1890, 1892, 1894, 1895, 1900, 1918, 1920, 1928, 1932, 1935, 1939).

The soda bottle assemblage consists of 55 elements inclusive of 22 whole bottle and/or fragments mending to form whole bottles, as well as 12 base and body fragments, 8 lip to base fragments, 3 lip, neck and body fragments, 2 body shards, 2 shoulder fragments, 2 neck fragments, 2 lip to neck elements, 1 lip, neck and shoulder fragment, and a single basal shard.

Several maker's marks, bottling companies, and brands were identified in the soda bottle-related assemblage. Among these include bottle or bottle fragments from the Pittsburgh Valley Bottling Company (Pittsburgh, PA; n=26), the E. & J. Khalil Bottling Works (Pittsburgh, PA; n=4), the State Bottling Works (New Kensington, PA; n=2), Keystone Bottling & Supply Company (Pittsburgh, PA; n=2), the Glendale Bottling Works (Carnegie, PA; n=1), and the Eagle Soda Water Company (Pittsburgh, PA; n=1). Trademarked brands identified include Clicquot Club and Coca-Cola.

As mentioned previously, information on many of these bottling firms is spotty at best. Pittsburgh City Directories indicate that the Pittsburgh Valley Bottling Company operated at 1904 Bedford Avenue (relatively close to the Project Area) minimally between ca. 1924 and 1934. The bottles are clear, display a crown-type finish, and are typically embossed with four intertwined "SL" cartouches around the circumference of the neck and "REGISTERED / PITTSBURGH VALLEY / BOTTLING CO. / PITTSBURGH" in a central circular cartouche or "PITTSBURGH VALLEY BOTTLING COMPANY" located just below and around shoulder area. The embossed "SL" cartouche stands for Sam Lachman, the owner of the firm. Many of the bottles are embossed on the base with "PV." (Figure 71)

The E. & J. Khalil Bottling Works appears to have been founded around ca. 1922 (Bizapedia.com 2013). The firm's proprietor, Elias Khalil, was born in Syria and had immigrated to the United States in ca. 1912. Prior to starting the bottling works, Elias is listed in the 1920 census as a retail merchant in dry goods. By the 1930 census, he is shown as the proprietor of a bottle shop. The available Pittsburgh City Directories indicate that the firm existed between ca. 1923 and 1933/34; by 1934, the PCD indicate that Elias was a factory worker and no further mention of the bottling firm could be found. During the roughly 10 years that the firm was in business, Jobour Khalil is listed as Elias' partner; a Michael Khalil is added to the partnership by ca. 1932 (PCD 1932). Depending on the source, the firm address was listed at either 1318 Webster (e.g., PCD 1925) or 1308-1310 Gilmore Way (e.g. PCD 1929). The Khalil bottles are light aqua to aqua in color and typically embossed just above the heel "E. & J. KHALIL BOTT. WKS. / PITTSBURGH, PA." One bottle base is embossed with a large "K".

Little to no information could be found on the State Bottling Works, New Kensington, PA. A review of available New Kensington city directories for the years 1911, 1915, 1927, and 1940 did not list any bottlers under that name. The single bottle, comprised of two mending pieces, is embossed on the body "REGISTERED/STATE BOTTLING WORKS/NEW KENSINGTON, PA" The letters "CRC" are embossed on base. The recovered bottle shows evidence of machine manufacture that minimally indicates a post 1892 date of production (Jones and Sullivan 1985:163).

The Keystone Bottling & Supply Co. also appears by 1922 at 24 Charles Street, Pittsburgh, PA (Bizapedia 2013). The firm, owned by William Americus and Sidney Harris, continued in operation minimally through 1935, where it is listed at 427-433 Melwood Avenue (PCD 1922, 1923, 1927, 1929, 1930, 1935). The recovered mending bottle fragments display a circular cartouche encasing "KEYSTONE BOTTLING/&SUPPLY CO./PITTSBURGH, PA...." The base is embossed with a keystone symbol.



Figure 71: Sample of soda bottles recovered from 36AL635.

The bottle on the left is from the Pittsburgh Valley Bottling Company, while the bottle on the right is an example of a ca. 1928 hobble-skirt type Coca-Cola bottle.

The Glendale Bottling Works was located on Hill Street in the Glendale section of Carnegie, PA. Unfortunately, very little information exists concerning this bottling works, although it does appear in the 1928 edition of the *Industrial Directory of the Commonwealth of Pennsylvania*. The firm does not appear to exist prior to ca. 1919 in a review of available Carnegie, PA City Directories (CCD 1919; 1916; 1914; 1912; 1910; 1907; 1902). The recovered whole bottle obverse is embossed “REGISTERED / GLENDALE / BOTTLING / WORKS / CARNEIGE, P.A.” The reverse is embossed “THIS BOTTLE BOT TO BE SOLD.” The base is embossed “GBW.”

A single soda-related bottle displays an embossed American eagle on the shoulder underlain by “CON 6 ½ FL OZ.” The lower body is composed of molded columns. The reverse displays a similar figural eagle over “REGISTERED.” The base is embossed “EAGLE/S.W.CO./PGH.” The Eagle Soda Water Company is listed as being incorporated in 1920 (Bizapedia.com 2013) with an address of 3206 Niagara Street. The firm, operating under the ownership of William Goldman, existed through 1937; by 1938/1939 the Unatin Cheer Up Beverage Company opened at that location (PCD 1925, 1926, 1930, 1935, 1937, 1938, 1939, 1940).

Soda brand names recovered in the 29 Fulton/29 Fullerton Street assemblage include that of Coca-Cola (n=4) and Clicquot Club (n=1). The recovered Coca-Cola bottles or bottle fragments are of the so-called “Hobble Skirt”-type originally patented in November 1915 but were not put into production until ca. 1917 (see Figure 71). One complete hobble-skirt type bottle is embossed on the obverse body, just below the shoulder, script “Coca-Cola/TRADEMARK REGISTERED/CONTENTS 6 FL OZ”; while the reverse displays the same information plus “BOTTLE PAT'D Nov 16, 1915.” The bottle shape is the original patented “smooth” form and additionally exhibits a manufacturer’s mark, date code, and city/state. Embossed on the obverse heel is “ROOT”; a weekly embossed “28” flanks this mark on the right; and an indecipherable alpha-numeric designation is located to the left of the ROOT mark. The base is embossed with “PITTSBURGH, PA.” The “28” is a date code indicating manufacture in 1928. A body and base to another similar bottle denotes the same information, however it’s weakly embossed date mark appears to be “25” for 1925 (Lockhart and Porter 2010:48-47).

The solitary, machine-made, green-colored Clicquot (pronounced “Klee-Ko”) Club soda bottle originated from the Clicquot Club Company. The bottle body is embossed “TRADE/CLICQUOT CLUB/MARK” and “REGISTER” on the heel. The base is embossed with a figural Eskimo and two indecipherable triangular marks flanking the Eskimo on the left. The Clicquot Club Company was founded in 1881 by Henry Millis and was based in Massachusetts. By the 1930s, the company operated several bottling plants across the country. The company produced several soda flavors – ginger ale perhaps being their most well-known. The company existed for ca. 80 years until it was eventually subsumed into, and subsequently shut down by, Canada Dry in 1965. The use of the figural Eskimo as a trademark for the company began in 1913, thereby refining the date of the recovered bottle to 1913-1965 (<http://millispcd.net/index.cfm?pid=10188>; version current May 2013; http://en.wikipedia.org/wiki/Clicquot_Club_Company; version current May 2013).

Pharmaceutical-related Container Glass

The pharmaceutical glass assemblage is comprised of 51 whole specimens, 7 body shards, 4 base and body shards, 2 lip, neck and body shards, 2 neck and lip fragments, and a single complete dropper/applicator. Brand names identified in the assemblage include *Capudine* (n=1), *Bromo-Seltzer* (n=1), *Citrate of Magnesia* (n=3), *Milk of Magnesia* (n=1), *Pluto Water* (n=1), *Caldwell’s Syrup* (n=2), *Sloan’s Liniment* (n=2), *Listerine* (n=3), *Tonsiline* (n=1), *Glover’s Imperial* (n=1), *Vaseline* (n=4), *Musterole* (n=2), *Vick’s Vaporub* (n=2), *Cardui* (n=1), *Tanlac* (n=1), and *Mercurochrome* (n=1). Identified pharmaceutical bottle/container glass maker’s include the Illinois Glass Company (“I” in a diamond mark), the Owen’s Glass Company (“O” in a square mark), J.T. & A. Hamilton (J.T. & A.H.

heel mark), the Root Glass Co. (ROOT heel mark), the Maryland Glass Corporation ("M" in a circle mark), and Obear-Nester Glass Co. ("N" in a square mark). All of these firms operated principally during the early part of the 20th century. Table 12 provides a summary of identified pharmaceutical-related medicines recovered from the 29 Fulton Street site. Figure 72 shows a sample of recovered pharmaceutical bottles.

Toiletry-related Container Glass

Forty-seven (47) artifacts, including 37 whole containers, are classified as toiletry related. The assemblage includes products such as cold cream, deodorant, nail polish, hair tonic, perfume, and toilet water.

Eighteen (18) whole containers are identified as perfume or toilet water containers. Included in the assemblage are three ampules or tubes that were used as sample size containers (Figure 73). Four of the bottles exhibit product labels. One bottle is labeled with the elaborate label of Eduard Pinaud after shave, likely "Lilac Vegetal" and the base is embossed "BOTTLE PROPERTY OF H & G KLOTZ COMPANY REGISTERED." This bottle likely dates post ca. 1920 when the company opened its New York office (wiki.badgerandblade.com 2013). The second bottle is a trial sized bottle of Hoyt's German or Eau de Cologne that includes the metal and cork stopper. The embossed product label reads "E.W. HOYT & CO./PERFUMERS/LOWELL/MASS., USA. The bottle also exhibits a maker's mark of the Illinois Glass Company of Alton, Illinois, used ca. 1916-1929. A third bottle exhibits a label reading "COLGATE & CO./PERFUMERS/NEW YORK." Based on the presence of an Owen's scar on the base of the bottle and the logo of Colgate & Company, the bottle likely dates to ca. 1904-1928. In 1928 Colgate merged with Palmolive-Peet to become the Colgate-Palmolive-Peet Company (Jones and Sullivan 1985:38-39; www.colgate.com). One bottle exhibits an embossed label reading "Vanline's" in script just above the heel on opposite sides of the square base bottle. The bottle resembles a Vanline's toilet water bottle. The maker's mark consists of a triangle surrounding an "H", used by J.T. & A Hamilton ca.1900-1943 (Toulouse 1971:290). Another bottle is possibly an atomizer bottle and is embossed with four roses, one on each of four segments of the bottle. No product label is present on this bottle. The remaining perfume bottles are unremarkable with the exception of three that exhibit the maker's mark used by the Owens Bottle Company ca. 1911-1929 (Toulouse 1971:393).

Twelve artifacts, 10 whole containers and two fragments, were identified as cold cream containers. All of these are small jars of opaque white glass and were identified by their appearance, none of the artifacts exhibit a product label. Four of the whole containers exhibit a maker's mark for the Hazel Atlas Glass Company of Wheeling, West Virginia that was used ca. 1920-1964 (Toulouse 1971:239).

Two deodorant containers are present in the assemblage. Both are whole and exhibit a label for the Mum Deodorant Company, located in Philadelphia, on the base, a paper label would have been on the body of the container. The label reads: "MUM/MFG. CO./PHILA PA". Mum Mfg. Co. created the first deodorant in 1888. The company was sold to Bristol Meyers in 1931 (Mental Floss.com 2003).

Two fingernail polish containers were recovered. One of these has the applicator brush and cork stopper attached. No product label is present. The second container is embossed with the Cutex logo on the base. Cutex introduced nail polish in 1917, replacing the paste, cake, or powder that had been used for millennia (<http://www.cutexnails.com/about-cutex/through-the-years> 2013).

Table 12: Summary of Identified Pharmaceutical-Related Medicines from 36AL635

Brand	Manufacturer	Medicinal Type	Product Dates	Bottle Dates	Reference
Capudine	Capudine Chemical Company	Cure for Headaches	Ca. 1890 – 1948+	ca. 1904 – early 1950s based on evidence of machine manufacture using the Owen's method; shape of bottle resembles T&T extract listing in 1926 Illinois Glass Company catalog.	Fike 1987:166 Jones & Sullivan 1985:38-39
Bromo-Seltzer	Emerson Drug Company, Baltimore, MD	Antacid / Digestive Issues	1888 – 2008 (first discontinued in 1975; reformulated and discontinued again in 2008.	before 1960 when the use of glass bottles was phased out in favor of plastic	Internet website: http://en.wikipedia.org/wiki/Bromo-Seltzer ;
Citrate of Magnesia	Various Companies; McCullough Drug Company	Laxative / Digestive Issues	Advertised as early as 1896/1897; still produced	ca. 1904 – early 1950s based on evidence of machine manufacture using the Owen's method	Fike 1987:140-141
Milk of Magnesia	Charles H. Phillips Chemical Company, Glenbrook, CT	Laxative / Digestive Issues	1873 – Present; formally patented in 1906; still produced	post ca. 1924; date based on introduction of screw top bottle design	Fike 1987:141
Pluto Water/America's Physic	French Lick Springs Hotel, French Lick, IN	Laxative / Digestive Issues	Early 20 th century – 1971	1926 based on Root Glass Company heel mark and associated date mark "26."	Internet website: http://en.wikipedia.org/wiki/Pluto_Water
Dr. W.B. Caldwell's Syrup	Pepsin Syrup Company, Monticello, Illinois	Laxative / Digestive Issues	Ca. 1889 – 1962	Bottle dates ca. 1910 -1942	Internet website: http://www.glassbottlemarks.com/w-b-caldwells-monticello-il-bottles/ ; http://www.bottlebooks.com
Sloan's Liniment	Dr. Earl S. Sloan	Liniment for Muscle and Joint Pain/Rheumatism	1852 – 1985+	Two bottles recovered; one displays embossed M in a circle of the Maryland Glass Corp. used since 1916. Presence of Owen's scar indicates date at least into early 1950s. Bottles date ca. 1916 – 1950.	Fike 1987: 37
Listerine	Lambert Pharmacal Company	Mouth Wash for Chronic Halitosis	Introduced 1879; marketed as over the counter mouthwash by 1914; continues to be produced. Lambert Pharmacal Company marketed and sold Listerine from 1885 – 1955. Still produced.	Bottles date ca. 1911 – 1929 based on Owen's Bottle Company maker's mark (i.e. "O" in a square); ca. 1916 – 1929 based on the diamond surrounding an "I" mark used by Illinois Glass Company, and post 1915 "N" in a square mark of Obeare-Nester Glass Co.	Munsey 2006

Brand	Manufacturer	Medicinal Type	Product Dates	Bottle Dates	Reference
Tonsiline	Harry Harper Ink	Remedy for tonsillitis, acute and chronic sore throat, coughs, colds, hoarseness, and similar ailments of the mouth and throat	Ca. 1892-1963; formally patented 1909; produced well into 20 th century	Bottle dates 1916 – 1929 based on the diamond surrounding an "I" mark used by Illinois Glass Company	Fike 1987:183 http://www.trademarkia.com/tonsiline-71046441.html
Glover's Imperial	H. Clay Glover Co., NY	Mange / Dandruff / Skin Disorders	Introduced 1888; marketed through ca. 1980s	Bottle dates ca. 1904 – early 1950s based on evidence of machine manufacture using the Owen's method	Internet websites: http://www.antiquemedicines.com ; http://www.bottlebooks.com
Vaseline	Chesebrough Manufacturing Company, NY	Salve	Introduced 1872; product continues to be produced	Common jar form post ca. 1890; Recovered jars likely early 20 th century	Internet websites: http://www.vaselineskinfund.com/Carousel.aspx?Path=Consumer/AboutUs/History#stage4 http://www.glassbottlemarks.com/chesebrough-manufg-co-vaseline-jars/
Musterole	Musterole Co.	Ointment for Colds and Congestion	Ca. 1905/6-1956+	Ca. 1905/6-1956+	Fike 1987:174; Encyclopedia of Cleveland History 2013
Vick's Vaporub	1905 - Vicks Family Remedies Company 1948 – Vick's Chemical Company	Treatment for colds or congestion	Introduced ca. 1905; first marketed under current name ca. 1912; continues to be produced	---	Munsey 2008
Cardui, the Woman's Tonic (aka Wine of Cardui)	Chattanooga Medicine Company	Tonic for Woman's Menstrual Relief	Introduced 1879 by R. I McElree; Sold to Chattanooga Medicine Co. in 1882. Company becomes Chattem Labs and continues production until 1982.	Bottle dates ca. 1904 – early 1950s based on evidence of machine manufacture using the Owen's method	Fike 1987:55
Tanlac	Cooper Medicine Company, Dayton, OH	Tonic cure-all and System Purifier	Early 20 th century Advertised in 1915, 1916, 1922, 1925, 1928, 1929, 1931	Bottle dates ca. 1904 – early 1950s based on evidence of machine manufacture using the Owen's method	Internet websites: http://newspapers.rawson.lib.mi.us/chronicle/cc1916%20(E)/issues/06-09-1916_6.pdf http://sag.stparchive.com/Archive/SAG/SAG10011925P03.php
Mercurochrome	Various companies (e.g., H.W. & Dunning)	Topical Antiseptic	1918 – 1998 (use in U.S. ends in 1998)	Glass Applicator only	http://en.wikipedia.org/wiki/Merbromin



Figure 72: Sample of pharmaceutical-related containers recovered from 36AL635.

a) Glover's Imperial Mange Medicine; b) Dr. W.B. Caldwell's Pepsin Syrup bottle; c) Tonsiline bottle; d) Bromo-Seltzer bottle; e) Vaseline jar; f) Milk of Magnesia bottle; g) Citrate of Magnesia bottle; h) Capudine bottle

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Figure 73: Sample of perfume and toilet water-related bottles recovered from 36AL635.

- a) atomizer-style perfume bottle with embossed roses; b) *Eduard Pinaud* after shave bottle; c) toothpick card cologne ("ten cent handkerchief cologne"); d) sample perfume vial; e) "Lily"-shaped toilet water bottle (appears in 1920 and 1926 Illinois Glass Co. catalog); Owens Bottle Co.-made (1911-1929) perfume bottle with stopper and cork seal.

Two whole hair tonic bottles were recovered. These bottles have the distinctive “Sprinkle-top” closure unique to bottles used for hair tonic and other barber shop related products. The bottles were popular ca. early 1920s - 1960s (Lindsey 2013). One of the bottles exhibits an embossed label “WILDROOT” on both narrow sides of the rectangular bottle. Wildroot Hair Tonic, Cream, and Oil were produced by the Wildroot Company in Buffalo, New York between 1911 and 1959, when the company was purchased by Colgate-Palmolive (forgottenbuffalo.com).

Three different kinds of cream containers were recovered. The first is a colorless bottle embossed with the label of Hinds Honey and Almond Cream. This was a body, face, and hand cream manufactured by the A. S. Hinds Company of Portland, Maine between 1875 and 1948. Although the company was purchased by Lehn & Fink in 1907, the cream was available under the Hinds name until 1948 (friends of Hinds.com 2013). The bottle also exhibits the maker’s mark used by the Illinois Glass Company ca. 1916-1929 (Toulouse 1971: 265). The second cream container is a rectangular, opaque white glass container embossed "NADINOLA CREAM/A COMPLEXION BEAUTIFIER/NATIONAL TOILET CO./PARIS, TENN, U.S.A.". Nadinola was a popular “skin whitener” produced in Paris, Tennessee beginning in 1899 (downtown Paris Assoc. 1913). a second skin whitener, Derma Viva, was also recovered. This container is a rectangular bottle with rounded corners and a cork seat. It is embossed “DERMA” on shoulder obverse, and VIVA on shoulder reverse. The base is embossed "DERMAVIVA/CO.CHICAGO." Little information was available for the history of the Derma Viva company, however, the product appears in newspaper and magazine ads from the 1900s-1920s.

Eight container or container fragments are labeled “unidentified” as to their use. Two of these containers have sprinkle top finishes often seen on products like hair tonic or cologne. This type of finish was in used ca. the early 1920s - 1960s (Lindsey 2013). One of the sprinkle top containers is embossed "FLORAL PRODUCTS INC." on the shoulder. One of the containers exhibits the maker's mark is of the Hazel Atlas Glass Company used ca. 1920-1964 (Toulouse 1971:239). The remaining unidentified toiletry containers are unremarkable.

Food Preparation and Storage-related Glass

The 21 artifacts comprising the food preparation and storage-related assemblage consists of 17 food packer jars, 3 condiment bottles/jars, and 1 vinegar jug. The machine-made vinegar jug displays a ring handle and a spout, and is embossed on the base “PATENT PENDING.” The majority of the food packer jars (n=15) served a dual purpose. Initially intended for food packing--after the contents were emptied, the glass transitioned to use as a drinking tumbler. These jars-turned-tumbler exhibit anchor-type closures evidenced by single or multiple horizontal bands of tightly spaced vertical ridges/ribs, usually located just below lip area. One other jar displays a continuous thread, screw top, finish. Two of jars display maker’s marks. The first mark is the embossed “H over and A” mark of the Hazel Atlas Glass Co. (ca. 1915 – 1929; Toulouse 1971: 239) and the other mark is the “capstan” trademark of the Capstan Glass Co., South Connellsville, PA (ca. 1919 – 1938; Bernas 2007).

The food condiment bottles include a paneled, machine-made, H. J. Heinz bottle, a Hellman’s Mayonnaise jar, and a condiment bottle of unknown function. This latter bottle displays an craqueleur-like pattern across the entire exterior surface. The bottle embossed with “H.J. HEINZ CO./III/PAT.” is a mark employed by the H.J. Heinz Glass Company, Sharpsburg, PA between 1892 and 1946. The bottle exhibits an Owen’s scar (ca. 1904 – early 1950s) and a lighting-type closure that was used between ca. late 1870s and the 1920s (see also www.sha.org/bottle/closures). After that date, crown caps become the norm. Based on these hallmarks, this particular artifact dates ca. 1904 – 1920s. The Hellman’s jar is embossed on base "HELLMANS'S/BLUE RIBBON/REGISTERED/3, “O” in a Square, 6.” Hellman’s Blue Ribbon was developed for the market in 1912. The “O” in a square is a mark used by

the Owen's Bottle Company between 1911 and 1929 (Toulouse 1971:393). This jar dates ca. 1912 – 1929.

Miscellaneous Container Glass

Twelve (12) artifacts, consisting of nine (9) whole bottles and three (3) fragments, are identified as household chemicals. Eight whole, amber to brown colored, Lysol bottles and three fragments of an additional bottle were recovered. All of the whole bottles are of the same style; short, with rounded shoulders, and a cork seat. "Lysol" in vertical script is embossed on the body, overlying graduated lines. Lysol is known as the "first international disinfectant" (hbs.edu). The product was invented by the Schulke & Mayr Company of Hamburg, Germany and was introduced to the United States by Lehn & Fink Products Company in 1890. Lehn & Fink began producing Lysol in 1912 in the United States under a licensing agreement with the German company. They purchased the rights to Lysol in 1922. Based on the company information embossed on the base of these bottles, many are dated no later than the 1930s. This information includes information such as the location of the company: "LYSOL INCORPORATED BLOOMFIELD" and "N.J.; LYSOL, INC./NEW YORK" and where the bottle was manufactured: "BOTTLE MADE IN U.S.A.". Four of the bottles also exhibit the maker's mark of the Owens Bottle Company that was employed ca. 1911-1929 (Toulouse 1971:393).

The final household chemical bottle is a whole bottle labeled "LIQUID STOVE POLISH/MANUFACTURED BY/J.L. PRESCOTT CO./NEW YORK" embossed in a recessed panel. The J.L Prescott Company was founded in 1870 in North Berwick, Maine and moved to Passaic, New Jersey. This bottle was likely manufactured ca. 1904-early 1950s based on the presence of an Owens scar.

One ink bottle was also recovered during archaeological investigations at 29 Fulton Street. The vertical cylindrical-style bottle exhibits an embossed label reading "WATERMAN'S INK" on the edge of the shoulder. The opposite side of the shoulder is marked "2 OZ." The base is embossed "THIS CONTAINER MADE IN USA" over "2". The bottle is machine made with a cork stopper finish. Waterman's Ink was created for the fountain pen, which was invented by Lewis Edson Waterman in 1836. Waterman patented over a dozen different inks for Waterman pens. Waterman's Ink is still manufactured today and is popular with artists and calligraphers.

Unidentified Container-related Glass

Many of the container glass fragments were unable to be definitively classified according to function and have been subsumed into a general unidentified container category (n=293). This assemblage contains 56 unidentified bottles/fragments, 6 unidentified jars/jar fragments, 215 unidentified container/container fragments, and 16 non-descript specimens that were unable to be classified due to excessive fragmentation or spalling.

Eight whole specimens were recovered and include 5 jars, 1 bottle, and 2 unidentified containers. These consist of a possible perfume and/or medicine vial, as well as a possible food container. Five specimens exhibit maker's marks or manufacturing attributes that help to assign a date range for manufacture and use. Among these are three container or container fragments with Owens scars (ca. 1904-early 1950s; Jones and Sullivan 1985:38-39), one with the maker's mark of the Owens Bottling Company used ca. 1911-1929 (Toulouse 1971:393), and one that exhibits machine-made attributes (post 1889; Jones and Sullivan 1985:38-39). The remaining whole bottle is entirely unremarkable.

Of the remaining 285 unidentified container-related artifacts, only 18 display attributes of manufacture or design that help to assign a date of manufacture and/or use. These attributes include 11 fragments with an

Owens scar (ca. 1904 – early 1950s; Jones and Sullivan 1985:38-39), 5 exhibiting attributes of machine made containers (post 1889; Jones and Sullivan 1985:38-39, 1 example of solarized glass (ca. 1875 – 1920; Jones and Sullivan 1985:13), and 1 highly weathered, possible painted product label (1934 – present; Jones and Sullivan 1985:76). The remainder of the unidentified fragments are unexceptional and are not further discussed.

Container-related Closures

Six artifacts are identified as closures. Four of these are club sauce-type stoppers that broadly date from the late 19th through the early 20th centuries (Jones and Sullivan 1985:152). One of the stoppers is enclosed by a tin cover displaying the Gordon's Gin logo used ca. 1902/03-1913/14 (Petrich-Guy, Swords, Haught, and Kienholz 2011). One elongated prismatic stopper (and desiccated cork) is associated with a perfume bottle made by the Owens Bottle Company (ca. 1911-1929). The sixth closure is an opaque white round lid that is likely from a cold cream jar.

Non-Container-Related Glass

The non-container glass assemblage is comprised of 331 flat glass fragments, 23 tableware fragments, 20 lighting and electrical related fragments, 11 unidentified fragments, 1 mixing bowl fragment, 1 magic lantern slide, and 1 antiseptic applicator (see Table 12 for a discussion of this applicator).

Architectural and Furnishing-related Glass

The identified flat glass assemblage is composed of 277 window pane fragments of flat drawn sheet glass dating post ca. 1917 (Fowle 1924:58), 24 fragments of plate glass, and 7 window pane fragments manufactured of cylinder glass (pre ca. 1926; Schrafenberger 2004:62). Five (5) of the plate glass fragments, ¼ inch in thickness, exhibit one surface toughened/roughened and/or embossed with tightly spaced parallel ridges. It is possible this material was for shelving or some form of safety/privacy glass. An additional 23 flat glass fragments were unable to be accurately classified. The flat glass assemblage was recovered throughout Feature 2 and is likely associated with the structure at 29 Fulton Street.

Tableware-related Glass

The small tableware assemblage consists of 22 colorless (clear) elements and one (1) solarized (amethyst-colored) fragment. Identified functional categories include 14 drinking-related elements, 5 serving-related artifacts, and 1 dining-related element. Three (3) fragments exact function could not be determined.

The drinking-related assemblage contains 2 cordial/wine glass elements, 4 shot glass/juice tumbler elements, 6 tumbler fragments, and 2 probable drinking-related glass fragments whose exact function could not be determined. All elements are molded and/or press-molded of soda-lime based glass. The two cordial/wine glass elements likely belong to the same artifact, although they do not mend. One element consists of the bowl to stem/knop portion of the glass, while the other element is a portion of a hexagonal base. The bowl exhibits a press-molded paneled exterior complimented by four wheel-engraved, star-like flowers on stems. The tops of the arched panels exhibit wheel-cut, vertical, and parallel notches. Paneled flute designs are typically classified under the attribution of so-called "Colonial" patterns and were most popular between the ca. 1890s and the 1930s. Such regional glass companies as Heisey (Newark, OH), Imperial (Bellaire, OH), Westmoreland (Jeanette, PA), Cooperative Flint Glass (Beaver Falls, PA), and Indiana (Indiana, PA), among many others all had *Colonial* variants (e.g., Archer 1978; Wilson 1996; Brown 2005; Dunbar 2000; Husfloen 1992; Autenreith & Autenreith 2008). Although the recovered cordial resembles Heisey's *Colonial* pattern in form, the knop is not

correct (Husfloen 1992:136-137). Another possible candidate is Westmoreland's *1776 Colonial* pattern, first introduced in 1911, with engraved sunburst variants appearing after ca. 1912 (Wilson 1996:42). The more likely match, however, mirrors Cooperative's *Martha Washington* pattern shape (with identical knop area) that was introduced ca. 1910 and produced through 1920s if not into the 30s (Autenreith & Autenreith 2008:152-153) (Figure 74).



Figure 74: Cordial bowl and foot in what appears to be Cooperative Flint Glass Co.'s *Martha Washington* pattern.

The four shot glass/juice tumbler artifacts consist of 2 base and body fragments, 1 rim and body fragment, and a single lip to base fragment that comprises about 60% of the overall vessel. This latter artifact, 3 ¼ inch in height, displays press-molded columns on its upper half, and panels/flutes on the lower half. The base exhibits the maker's mark (i.e., an embossed H over an A) of the Hazel Atlas Glass Company, Washington, PA. This mark was used ca. 1920 – 1964. The exact pattern could not be identified. Two other artifacts also display a combination of press molded ribs/columns and flutes/panels. One base and body fragment is plain and tapers out from base.

The tumbler assemblage includes 2 lip and body fragments, 2 base and body fragments, 1 lip fragment, and a single whole specimen. All are colorless, save for one of the base and body fragments that has been solarized due to exposure to sunlight (ca. 1875 – 1920; Jones and Sullivan 1985:13). Decorative motifs observed in the tumbler assemblage include alternating press molded panels and mitres (n=2), arched flutings (n=1), and glued and fired frit (n=2). This latter decorative category was a late Victorian through early 20th decorative technique that involved taking granulated glass (i.e., frit) and gluing it via adhesive to the exterior of an item, and subsequently re-firing that piece (Bredehoft 2004:230). Two non-mending lip and body fragments belonging to the same tumbler display a wreath, ribbon, and swag pattern produced using this decorative technique.

The serving-related tableware assemblage consists of a possible lid to a sugar bowl or covered dish (n=3) as well as two mending portions to a 1 gallon capacity water pitcher. The artifacts, a press-molded handle and the base, body and handle base mend to form a 12-sided, exterior paneled pitcher with interior diagonal twists. The paneled pitcher conforms to Colonial-inspired shapes/patterns characteristic of the early 20th century (see above discussion) (Figure 75).

The single dining-related element is the bowl portion to a pedestaled sundae/sherbet dessert dish. The artifact displays exterior flared panels. Many companies produced this form. The Paden City Glass Manufacturing Company, Paden City, WV, for example, produced this very shape in the ca. 1916 – 1933 period under the name No. 77 6 oz Colonial Sundae (Brown 2000:70) (Figure 76).

The unidentified tableware assemblage consists of a single body shard displaying an exterior etched pattern of grapes and leaves, a press-molded rim and body shard with an unidentifiable faceted design, and a lip and body fragment to a possible bowl.

Lighting and Electrical-related Glass

Items related to a lighting and electrical classification include 14 light bulb fragments, 3 lamp shade or globe fragments, 1 possible radio tube and another radio tube fragment, and 1 fuse window. The majority of these artifacts can be loosely attributed to an early 20th century affiliation; radio tubes were introduced ca. 1927 (Net Industries and Licensors 2013).

Miscellaneous Glass Artifacts

A single colorless, flat glass disk measuring 2 ¼ inch in diameter and depicting a reverse painted image of a horse was recovered from Feature 2 (Figure 77). The artifact is possibly a slide used in a so-called “magic lantern.” Magic lanterns were basically slide projectors and have been in use in some form since the ca. 1650s. Variants continued in popularity through the first half of the 20th century. A variety of slide types were used in these early slide projector forerunners. Some circular slides, such as the example recovered, were housed in wooden frames either as single slides or three to a frame (i.e., multiple slide) (Internet website: <http://www.magiclantern.org.uk/>; version current May 2013).



Figure 75: Colonial-pattern style water pitcher.



Figure 76: Bowl portion of a common early 20th century pedestaled dessert/sundae dish

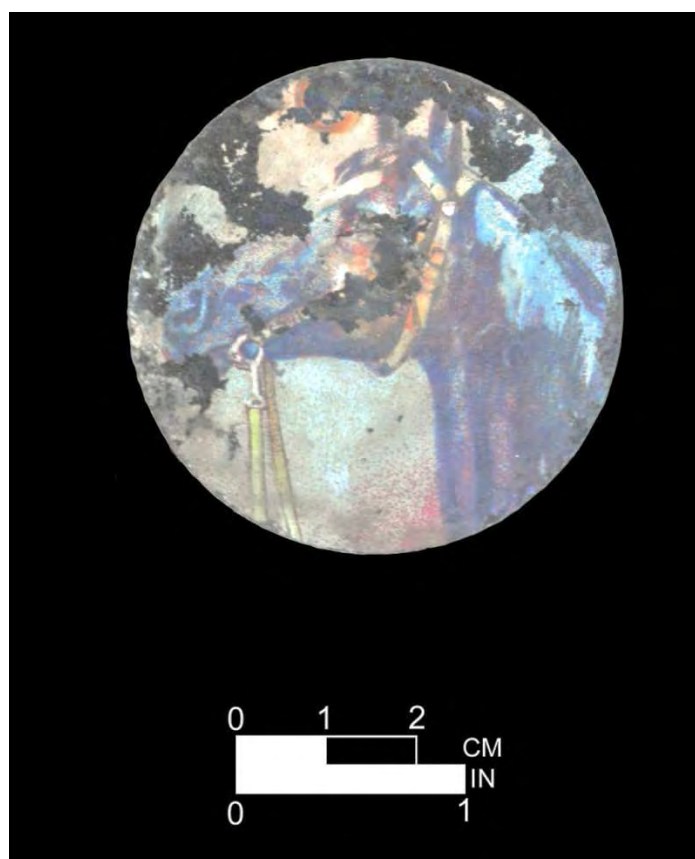


Figure 77: Probable magic lantern glass slide depicting a bridled horse head

Overview of Glass Artifacts from the 29 Fulton Street Site

The glass assemblage from the 29 Fulton Street site was recovered entirely from deposits designated as Feature 2. The feature is classified as a short-term use trash dump that appears to principally date ca. 1920s – 1930s. The glass assemblage supports this supposition as the clear majority of diagnostic glass artifacts date to this period. Furthermore, there does not appear to be any definitive evidence for stratification within the feature deposit based on the temporally diagnostic portions of the glass assemblage. Such an observation may corroborate the idea that this dump was used in a relatively bracketed period of time. Functionally, items noted in the glass assemblage can be subsumed into categories including drinking, dining, health and beauty, food consumption and storage, recreation, and architectural. The architectural flat glass elements more than likely are associated with the house that once stood at 29 Fulton. The remainder of the glass assemblage seems to reflect an interesting mix of household, personal, and commercial-related materials. Such a diversity in items would not be entirely unexpected in a site that has variously transitioned from single dwelling, to multi-family residence, to Elks Lodge, and a return to a multi-family dwelling. Certainly, it is likely that a portion of the assemblage may be able to be linked to the use of the building by the Elks at least from the 1910s into the 1920s during their occupancy tenure.

Metal Artifacts

The metal assemblage recovered from the 29 Fulton Street site is comprised of iron and steel, aluminum, brass, copper, lead, tin, and zinc artifacts. The iron and/or steel assemblage includes 169 architectural and furnishing elements, 115 closures, 39 container-related elements, 1 example of kitchenware, 1 personal object, 40 miscellaneous items, and 21 unidentified fragments. Table 13 provides a list of the iron or steel artifacts. Thirty-four (34) of the nails were further identified as wire nails manufactured post 1885 (Adams 2002:73). Continuous thread caps and crown caps were identified within the closure assemblage. Continuous thread caps have been manufactured since 1919, while crown caps have been used since 1892 (Lief 1965). Cans have been used since 1810 (Busch 1981:95-104).

Non-ferrous artifacts include 18 architectural and furnishing-related objects, 3 arms group-related artifacts, 14 closures, 9 container-related elements, 3 lighting and electrical-related artifacts, 5 miscellaneous objects, 10 personal items, 1 tool, 1 vehicle-related artifact, and 3 unidentified fragments. Table 14 provides a list of the non-ferrous artifacts while Figure 78 presents a sampling of these artifacts.

Two brass wood screws were machine-made and postdate 1846 (Pittman 1987:54). Several of the closure-related artifacts were further identified as a threaded canning jar lid, a continuous cap, and a crown cap. Threaded canning jar lids date post 1915, while continuous caps have been manufactured since 1919, and crown caps have been used post 1892 (Lief 1965). Highly oxidized can fragments recovered in the assemblage minimally indicate post 1810 manufacture (Busch 1981:95-104).

Several artifacts (n=6) display embossing and stamping. These include a brass nut embossed with “CP” on the exterior and textured for grip, a brass toilet flushing mechanism embossed with “FROST PAT APPD FOR KENOSHA” (this item was produced by Frost Manufacturing Company and patented in 1922), an unfired .38 caliber cartridge case stamped “US” on the primer (no manufacturer stamp was visible), and a brass cap for a *Karess* brand talcum powder shaker tin. The tin is embossed with a Greek key pattern border and four flowers. Associated text reads: “TALCUM/KARESS/WOODWORTH/NEW YORK”. The *Karess* line was first introduced by CB Woodworth Sons Company of Rochester, NY in 1922 (Unknown 2011). Also recovered was a brass identification pin for the Jones and Laughlin Steel Corporation. The pin is in the shape of a shield with an eagle below the company name. ID number “6445” was stamped below the eagle (Figure 79).

Table 13: Summary of Iron or Steel Artifacts Recovered from 36AL635

ARTIFACT	QUANTITY	ARTIFACT	QUANTITY
ARCHITECTURAL AND FURNISHING			
Bolt	2	Screw, Unidentifiable	1
Bracket	1	Spring	3
Cable	5	Strap/Band	3
Caster	1	Tack	1
Escutcheon	1	Unidentifiable Construction	1
Nail	62	Unidentifiable Hardware	4
Nail, Wire	34	Window Grating	2
Padlock	1	Window Screen	12
Pipe	15	Wire, Common	1
Pipe Hose	2	Wire, Unidentifiable	15
Pipe/Tubing	1	Unidentifiable Fragments	1
CLOSURES			
Lid/Cover	1	Cap, Crown	106
Cap, Clicking Dome	1	Cap, Unidentifiable	3
Cap, Continuous Thread	3	Unidentifiable Closure	1
CONTAINERS			
Canister	1	Medicine Tin	3
Bucket	2	Unidentifiable Container	11
Can	22	-	
KITCHENWARE			
Pot/Kettle	1	-	
PERSONAL			
Compact	1	-	
MISCELLANEOUS			
Machinery	4	Disc	1
Sheet Metal	35	-	
UNIDENTIFIABLE			
Unidentifiable Fragments	21	-	

Table 14: Summary of Non-Ferrous Metal Artifacts Recovered from the 29 Fulton Street Site

ARTIFACT	QUANTITY	ARTIFACT	QUANTITY
ARCHITECTURAL AND FURNISHING			
Drawer Pull	1	Unidentifiable Hardware	1
Nut	1	Unidentifiable Disc	1
Pipe	1	Unidentifiable Strap	1
Screw, Pointed, Wood	2	Washer	2
Toilet Flushing Mechanism	1	Wire, Unidentifiable	7
ARMS GROUP			
Unfired Ammunition	1	Cartridge Case	2
CLOSURES			
Cap	1	Cap, Crown	1
Lid/Cover	8	Cap, Unidentifiable	3
Cap, Continuous Thread	1	-	
CONTAINERS			
Can	4	Tube	1
Canister	1	Unidentifiable Container	3
LIGHTING AND ELECTRICAL			
On-Off Light Switch	1	Wall Sconce Fixture for Gas Light-	1
Plug Fuse	1	-	
PERSONAL			
Adjustment Slide	1	Ring	2
Grommet/Eyelet	2	Safety Pin	1
Perfume/Cologne Bottle	1	Suspender Buckle	1
Pin	1	Suspender Loop	1
MISCELLANEOUS			
Sheet Metal	4	Figural Artifact	1
TOOL			
File	1	-	
UNIDENTIFIABLE			
Unidentifiable Fragments	3	-	
VEHICLE RELATED			
Valve Stem	1	-	

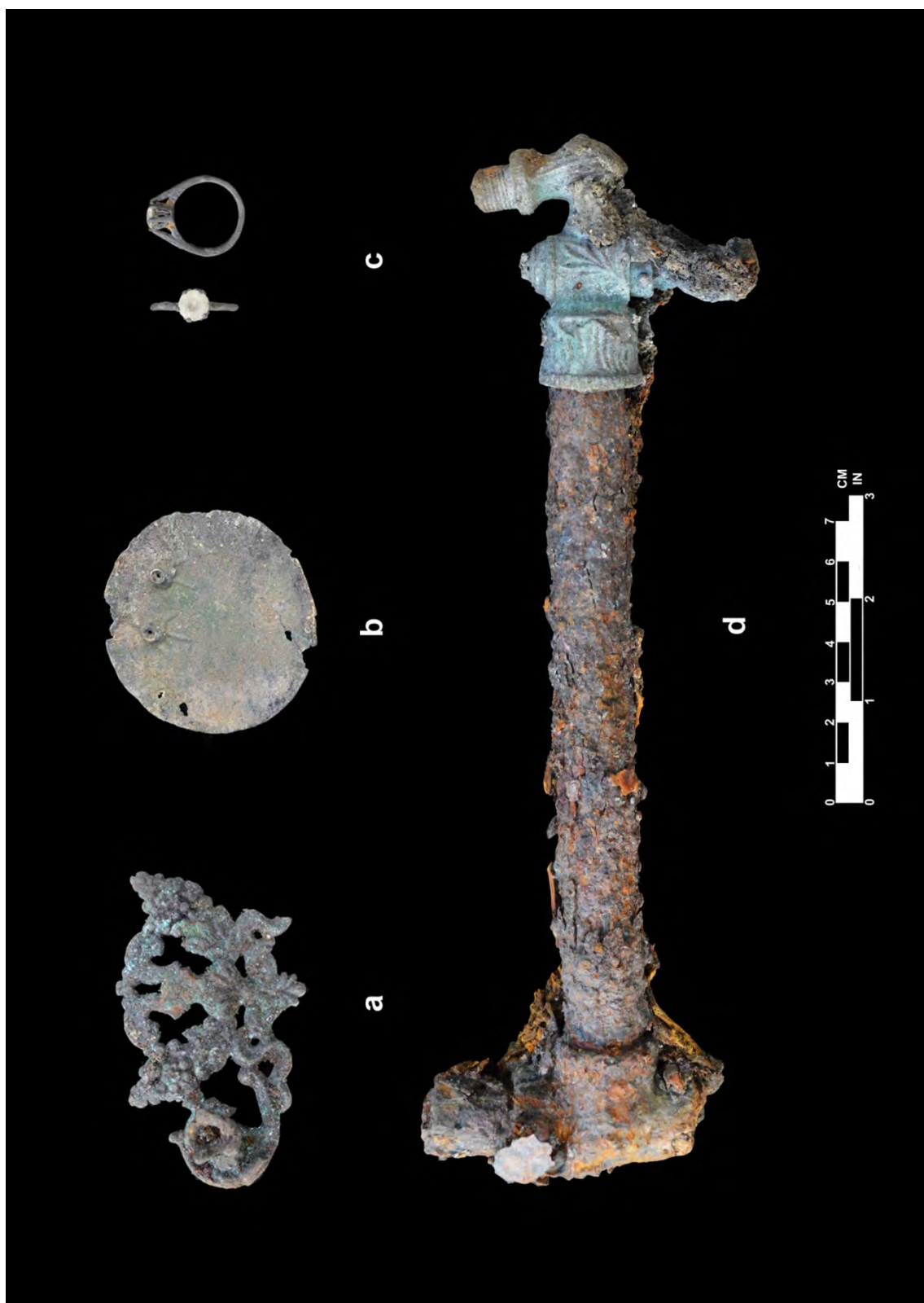


Figure 78: Examples of non-ferrous metal artifacts recovered from 36AL365.

- a) Brass drawer pull/back plate;
- b) Base of unidentified white metal/spelter figural artifact showing bird feet standing on a lily pad;
- c) brass ring with imitation glass diamond;
- d) brass and iron gas wall sconce/fixture.



Figure 79: Brass, shield-shaped pin from the Jones & Laughlin Steel Corporation.

Miscellaneous Artifacts

A total of 202 miscellaneous artifacts were recovered during archaeological investigations at the 29 Fulton Street site. The assemblage is comprised of leather, wood, and rubber shoe fragments, shell buttons, Bakelite, plastic, celluloid, bone, cotton, graphite, slate, cotton, and composite material artifacts. All but two of the miscellaneous artifacts were recovered from Feature 2. These latter slate artifacts were recovered during “General Collection” of destruction rubble during Phase II excavations.

The 111 shoe fragments are not well preserved. They are manufactured from leather, rubber, and wood and comprise 55% of the miscellaneous artifact category. They include upper, insole, and heel fragments of what appear to be men’s work boots as well as men’s and women’s dress shoes.

Seventeen (17) buttons, manufactured of shell, wood, and plastic, were recovered. They are further identified as 15 two-holed shell, 1 four-holed, bone, and 1 two-holed plastic sew-through varieties. The buttons are likely all from underclothing, shirt, or waistcoats as they measure less than 15 mm in diameter (Lindbergh 1999:51).

Three types of plastic are represented in the miscellaneous assemblage and are described in order of abundance. Sixteen artifacts are identified as plastic. These include 4 unidentified fragments, 3 comb fragments, 2 unidentified container fragments, 1 file tab, 1 Mum’s deodorant applicator, 1 button (also listed above), 1 hairpin, 1 toothbrush, 1 doll foot, and 1 advertising calendar from 1925 (Figure 80).

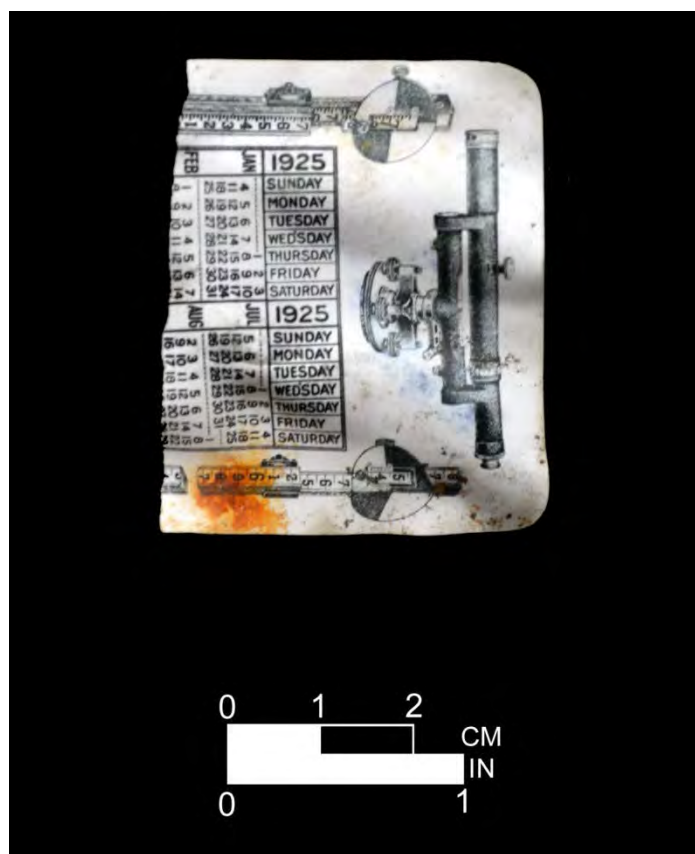


Figure 80: 1925 pocket/wallet calendar advertising the Keuffel & Esser Co., Hoboken, New Jersey.

Modern plastic evolved from the use of cellulose nitrate and camphor (celluloid), patented in 1870, to manufacture items such as billiard balls. By the end of the nineteenth century, formaldehyde was being blended with casein (milk protein) and phenol to produce resins used to manufacture buttons and electrical insulation. In 1907, Leo Hendrik Baekeland was the first to become successful using phenolics after he discovered a way “to control and modify the reaction so that useful products could be made from it” (plasticsindustry.org 2013).

The plastic toothbrush is stamped "SOFT/STERILIZED/GAURANTEED/PRO-PHY-LACTIC/IN US PAT. OFF./A CLEAN TOOTH NEVER DECAYS/MADE IN/FLORENCE, .MASS./USA". This label appeared on Pro-Brush toothbrushes beginning in 1924 (Erhardt 2013).

One of the comb fragments, possibly for a doll or child, exhibits the name ELLA MAE SMAY scratched into one side (Figure 81). A cursory review of historic records shows an Ella Mae Smay in the 1910 U.S. Census at the age of 2 indicating a birth year of 1908. Her family is listed as residing in the 12th Ward of Pittsburgh, PA. She is listed the 1940 U.S. Census as continuing to reside at home in the 13th Ward. Her profession is listed as that of public school teacher. An earlier 1938 article has her teaching at the Brushton School.



Figure 81: Plastic comb recovered from 36AL635 inscribed with the name Ella Mae Smay.

The nine artifacts manufactured from Bakelite include a footed bowl from a dresser set, a cigarette holder, 5 comb fragments, 1 douche nozzle, and 1 ring measuring 7.6-10 cm (3-4 in) in diameter. Bakelite is an early plastic manufactured ca. 1907 – 1945 (Bucher 1996:33; Pittman 1987:57). Eight artifacts are manufactured from celluloid, including 5 comb fragments, 2 fingernail buffers, and an unidentified fragment. Celluloid was an early plastic manufactured ca. 1853 – 1920 (Fenichell 1997:41; Springate 1997:63; Ford 1992:47; Grasso 1996:14).

Three artifacts are manufactured from bone, including the button described above and two toothbrushes. Both of the toothbrushes are stamped with maker's marks/logos and their place of manufacture. One brush is stamped on the underside, "COGU..A" and "WARRANTED BEST" arched over "MADE IN JAPAN." The upside of this toothbrush's handle had been crudely incised with "TH" - likely reflecting owner's name. Interestingly, a Thomas Huddleston is listed at this address in the 1940 census (Figure 82). The second toothbrush is stamped "FRANCE" on the neck; "Crown/REGISTERED" on the shoulder; "ROYAL CROWN.." on the handle; and "REPLACEMENT/BRISTLES.." on the handle tip.

Six artifacts are identified as portions of batteries and include such materials as graphite and manganese oxide. Two artifacts are identified as radio battery blocks. These are groupings of batteries that were employed to power radios during the 1920s and 1930s. Three fragments of battery blocks are also present in the assemblage.

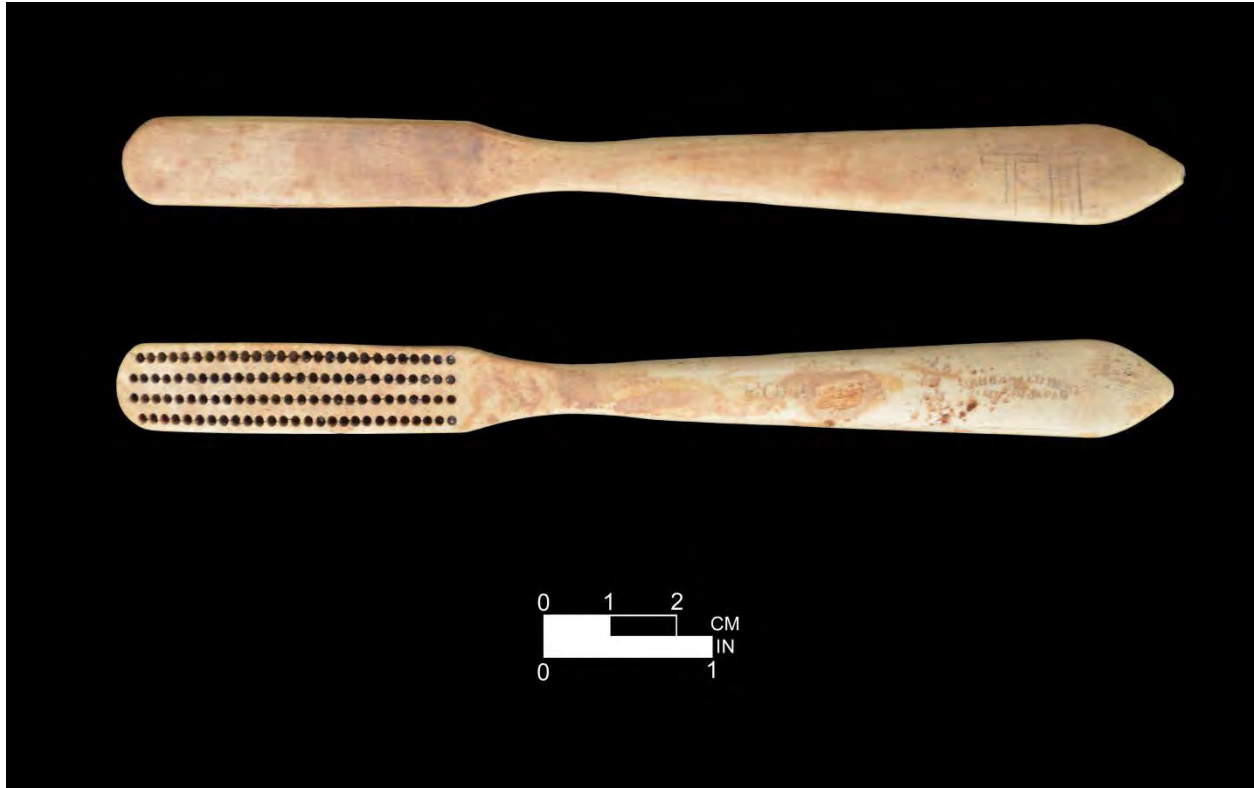


Figure 82: Bone toothbrush with initial “TH” etched into one surface of the handle.

Asphalt, cellophane, cotton fabric, slate, the eraser end of a pencil, and wood form the balance of materials in the miscellaneous assemblage recovered from the site. Many of these items were unidentifiable beyond their material. The slate artifacts consist of two crossmending side fragments of a slate mantle. The obverse exhibits a geometric incised rectilinear pattern in-filled by red; the incising appears to have been highlighted by "gilding". A center medallion on the surround consists of diamond with a cross. The reverse exhibits incised number "6839." This design was popular during the late Victorian period and into the early twentieth century (www.gascoals.com 2013), and would not be unexpected in a house that was constructed in the late 19th century.

The largest number of miscellaneous artifacts falls into the personal category, those artifacts related to grooming or usually owned or used by a single person. These include the shoe fragments, buttons, comb fragments, toothbrushes, and grooming items. At 154 artifacts, the personal category comprises 76% of the miscellaneous artifact assemblage. This seems to suggest that Feature 2 is, at least in part, domestic and/or residential in origin.

Ceramic Artifacts

The 128 ceramic artifacts recovered during archaeological investigations at the 29 Fulton Street site consist of 61 whiteware-, 43 earthenware-, 11 semi-vitreous-, 11 porcelain-, and 2 stoneware- artifacts. The ceramics were recovered exclusively from Feature 2.

Whiteware comprises the largest portion of the ceramic assemblage with 61 artifacts. The sherds are further identified as 38 tableware sherds, 22 sherds from a single large wash basin, and a single sherd from a thick walled, unidentified container. Tableware specimens include 14 fragments from unidentified tableware vessels, nine sherds deriving from bowl forms, 5 saucer fragments, 5 plate sherds, 4

unidentified dining vessel fragments, and a single cup fragment. Twenty-two (22) of the tableware sherds exhibit some form of decoration including applied decal designs (i.e., Decalcomania), hand painted, molded designs, and transfer printed flow blue designs.

Ten sherds are decorated with Decalcomania designs. Decalcomania as a decorative technique became popular after 1880 as a less expensive alternative to transfer printed decorations (Kamm 1956:viii; Pittman 1987:54). Five of these sherds exhibit designs that were popular in the early twentieth century. Three sherds display a stylized cartouche in blues and tans containing a spray of two pink roses and leaves, a common design element produced ca. late 1910s - 1920s (Jasper 1996). One sherd depicts a metallic gold band along the edge of the rim and is underlain by a repeating geometric pattern over an undulating swag of pink roses. Although the pattern was not identified, it too is similar to patterns produced by various companies during the ca. 1900 – 1920s period (e.g., Jasper 1996:158, 167, 197, 223). Lastly, one sherd exhibits a bold floral decoration located just below the lip consisting of a cluster of three blue bells, and petaled flowers connected by green curling stems. This style of decoration is consistent with a ca.1920 – 1930s attribution.

The large wash basin is decorated with a dark red/maroon-colored decal floral design reminiscent of transfer printing in a wide band around the interior of the vessel. The rim is decorated with gold sponging and the foot ring exhibits a metallic gold band. No maker's mark was observed on any of the recovered 22 specimens belonging to this vessel, however, based on the use of the decalcomania technique, the basin dates post ca. 1880.

The 43 earthenware artifacts consist of 40 redware artifacts, 1 yellow brick, 1 buff-bodied incense burner lid, and 1 earthenware door knob. Redware elements include 34 unglazed flowerpot sherds and six whole flowerpots of various sizes. The door knob is glazed with a black opaque glaze and is attached to a heavily oxidized iron rod. Such stock doorknobs were common in buildings and residences constructed during the 19th and early 20th centuries and this example most likely relates to the house that once stood at 29 Fulton. Nearby East Liverpool, Ohio was the location of the country's most prolific manufacturers of these ceramic knobs at least between the mid-19th century and the early years of the 20th century (e.g., McCord 1905:176).

The buff-bodied earthenware incense burner lid is virtually identical to incense burner forms originating from Japan and dating from the early twentieth century. Virtually identical burners are often found marked Nippon, which is the English spelling for Japan, and was a mark used on Japanese imported pottery between 1891 and 1921 (after which time “Japan” was used as the place of origin) (Internet website: <http://www.collectorsweekly.com/asian/nippon-porcelain>; version current May 2013). The recovered lid exhibits traces of silver paint on the exterior (Figure 83).

The semi-vitreous ceramic assemblage is comprised of seven fragments of a single washbowl, 2 plate fragments, 1 cup handle fragment, and an unidentified fragment. The white-glazed washbowl exhibits a molded design of bosses and swags. A maker's mark was observed on basal elements and consists of "THE COLONIAL CO." inside of a bell with an eagle head. This was a mark used by the Colonial Pottery Company of East Liverpool, OH between ca. 1915-1929/1930 (Lehner 1988:100; DeBolt 1994:35). The base sherd from a plate also exhibits a portion of a maker's mark: "...SEMI-VITREOUS"/"...ERS CO-OP..." This mark was not able to be identified.



Figure 83: Earthenware incense burner lid.

The 11 porcelain artifacts include 5 electrical items, 2 tableware sherds, 1 doll arm, 1 button, and a novelty souvenir. The electrical artifacts are further identified as three gaslight mantle rings, an insulator, and a toggle switch plate with heavily oxidized elements attached. The button is white and measures 13.12 mm in diameter, suggesting that it was an underclothing, shirt, or waistcoat button (Lindbergh 1999:51). The souvenir is a porcelain toilet-shaped vessel with transfer printed text, “For Gentlemen Only” (Figure 84). This was likely an ashtray that originally had a wooden “toilet seat” attached.

The two stoneware artifacts are crossmending sherds from a single spittoon exhibiting an open sponged and hand painted cobalt-colored decoration over a Bristol glaze. Based on these attributes, the piece dates to the early twentieth century (Blue & White Pottery Club 2013). Over 75% of the vessel is extant. (Figure 85).

The ceramic assemblage recovered from the 29 Fulton Street site is consistent with an urban domestic site. Research into the 29 Fulton Street site shows that for most of its history it served as a multi-unit residential dwelling. Items such as the wash basins and the several different patterns of tableware suggest that there were many different contributors to this historic dump. The souvenir toilet may be related to the years that the site was used by the Iron City Lodge 17, of the B.P.O.E.



Figure 84: Porcelain ashtray recovered from 36AL635 stamped “FOR GENTLEMEN ONLY”



Figure 85: Sponge decorated, Bristol-glazed stoneware spittoon recovered from 36AL635.

Faunal Material

A total of 221 vertebrate faunal elements, with a combined weight of 616.6 g (21.8 oz), were recovered during testing at 29 Fullerton. Approximately 92% (n = 203) was identifiable to the level of Class while 8% (n = 18) was considered indeterminate due to fragmentation. The majority of the material was classed as Mammalia (77%, n = 170) and the remainder Aves (19.5%, n = 43). The mammalian material was comprised of 118 indeterminate taxa, 38 pig (*Sus scrofa*), 3 cow (*Bos Taurus*), and 1 rat (*Rodentia*). The avian material included 37 indeterminate taxa, 5 chicken (*Gallus gallus*), and 1 turkey (*Meleagris*).

Identifiable elements include: Indeterminate Mammalia (1 femur, 1 scaphoid); *Sus scrofa* (13 phalanx/carpals, 1 tusk root, 3 molar, 2 scaphoid, 5 femur, 1 humerus, 1 tibia) *Bos Taurus* (1 femur, 1 rib, 1 sacrum); *Rodentia* (1 humerus); indeterminate Aves (1 femur, 2 tarsometatarsus); *Gallus gallus* (5 femur); *Meleagris gallopavo* (1 femur). Although only two avian taxa are identified in the assemblage, the relative size of the indeterminate elements suggests they either represent additional specimens of chicken and turkey or similarly sized domesticates such as duck or game hen.

Of the 221 elements examined, 14% (n = 31) were calcined as a result of thermal alteration and 0.5% (n = 1) exhibited gnawing by carnivore. Cut marks (chiefly as a result of butchering) was evident on 11% (n = 24) of the elements. In the specimens of pig (*Sus scrofa*) most of the saw cuts were on long bones.

A number of well-preserved pig phalanx/carpals were also recovered. The lack of observable saw cuts on these elements suggest the butchering of whole feet at the location of the soft cartilage. Based on property history information for 29 Fullerton Street it is probable that the material represents the consumption of "pickled pig's feet," a favorite form of pork in the Southern United States as well as, African-American and Korean cuisines.

The feet of hogs are typically salted and smoked in the same manner as other pork cuts, such as hams and bacon. It is common to preserve them in a manner very similar to home canning and processes for pickled vegetables; typically a saturation of hot vinegar brine is used. Such methods allow them to be preserved without the need for refrigeration until the jar is opened.

Pig's feet that are pickled are usually consumed as something of a snack or a delicacy rather than as the primary focus of a meal as its meat course. However, pig's feet are not always pickled and may be cooked as a part of a meal, often with vinegar and water to preserve their natural flavor. They have a high fat content, with almost an equal portion of saturated fat to protein.

The faunal assemblage also included five invertebrate specimens of pelecypoda with total weight of 102.7 g (3.6 oz) were retrieved. Of this total, one specimen was too eroded for identification as to taxon. The remaining specimens are examples of Atlantic, or more commonly Eastern, Oysters (*Crassostrea virginica*).

Floral Material

One floral specimen, a peach pit, was recovered at the 29 Fulton Street site. It is identified as a *Prunus* sp. and was recovered from Feature 2 during Phase II excavations.

SUMMARY AND RECOMMENDATIONS

The 29 Fulton Street site was identified based on the presence of subsurface features related to the building at 29 Fulton/Fullerton Street. Phase II excavations were planned based on these identified locations, and the work exposed a building foundation with related structural elements and a short-term use trash dump deposited within the building's foundation. The site was capped by a demolition layer related to the destruction of this and nearby buildings. In total, 1,902 historic artifacts, 221 faunal elements, and one floral specimen were recovered during the Phase I/II investigations, and all but two of the historic artifacts originated in the short-term use trash dump (Feature 2). This deposit dates between ca. 1925 and 1935 based on glass and ceramic artifacts. Analysis of the artifacts show that the occupants of the 29 Fulton Street site consumed beverages such as whiskey, wine, soda, and milk. The recovered faunal material consisted pig foot bones, chicken and other poultry bones, and oyster shells. Several bottles that once contained digestive aids and patent medicines were also recovered. These artifacts suggest that the residents suffered from ailments associated with poor diet, and poor and working class living conditions in the first half of the twentieth century.

The 29 Fulton Street site was continuously occupied from ca. 1890 until ca. 1958 when the buildings were demolished as part of the Civic Arena construction. All of the artifacts recovered at the site reflect the twentieth century portion of this occupation. More specifically, the trash dump and associated artifact assemblage likely relate to the 1910-1923 period when the building functioned as an Elks Lodge and multi-family residence. The feature appears to have been protected from the 1958 demolition episode by the foundation walls of the building at 29 Fulton/Fullerton Street and preserved by the overlaying demolition layer.

The foundation of the building at the 29 Fulton Street site is typical of row houses in the City of Pittsburgh, and does not embody distinctive characteristics of a type, period, or method of construction or represent the work of a master, possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction. Extant examples of row houses can be seen within historic districts of various City of Pittsburgh neighborhoods. The archaeological investigations of the site, however, did yield information important to Pittsburgh and Pennsylvania history. More specifically, datasets recovered from the trash dump addressed two of the Thematic Study Units defined for the project; Ethnicity and Diet and Health in a highly urbanized and culturally marginalized section of Pittsburgh during the early twentieth Century. Therefore, the 29 Fulton Street site is considered eligible for listing in the NRHP under Criterion D. However, no additional archaeological work is recommended since 43% of the site and over 60% of the trash dump was investigated during the combined Phase I and Phase II survey. Further work is unlikely to yield additional significant information to that already recovered.

31 Fulton Street Site

The 31 Fulton Street site is situated in the northeastern corner of Lot 2-C-300 near the intersection of Crawford Street and Bedford Avenue within an asphalt parking lot at an elevation of 284 m (932 ft) amsl (Figure 54). Based on the boundaries of the historic lot (Hopkins 1910), the site area measures approximately 134.65 m² (1,449.36 ft²). This lot is adjacent to the lot containing the 29 Fulton Street site (36AL635). Due to their proximity, the 31 Fulton Street site was identified during the Phase II investigation of the 29 Fulton Street site, with evidence limited to the south profile of Trench A (Figure 86). Trench A measured approximately 9.4 m (30.8 ft) in length (E-W) and 6.5 m (21.3 ft) in width (N-S), and was excavated to a maximum depth of 2.5 (8.2 ft). UTM coordinates for the southwest corner of Trench A are N4477488.07 E585797.02.

The 31 Fulton Street site consists of a building foundation and a 1958 demolition episode (Figure 87). In addition, two strata related to the modern use of the site area as a parking lot were identified. No artifacts were recovered from any of the cultural features at the 31 Fulton Street site.



Figure 86: The 31 Fulton Street site shown in the southern wall of Trench A.

STRATIGRAPHY

Two strata were identified at the 31 Fulton Street site (Figure 87). They are labeled in ascending order from oldest (lowest) to youngest (uppermost) and are described below.

Stratum I (Field Designation F4)

Stratum I consisted of an 8 to 12 cm (3.1-4.7 in) thick layer of brown (10YR 4/3) gravelly silt loam that extended to an approximate depth of 18 to 22 cm (7.1-8.7 in) bgs. The stratum occurred across the entire southern profile of the trench. Stratum I represents a former gravel parking lot surface for the Arena. According to Raymond Wolowicz (personal communication, March 2013), General Manager of Parking for the Consol Energy Center, a gravel parking lot was in operation until the 1980s when it was replaced by an asphalt surface. All cultural features related to the 31 Fulton Street site were identified below Stratum II. No artifacts were recovered in Stratum I.

Stratum II (Field Designation F3)

Stratum II is the uppermost stratum at the 31 Fulton Street site. It consisted of an approximately 10 cm (3.9 in) thick layer of asphalt used as the existing parking lot surface. The stratum extended across the entire profile of the trench. No artifacts were recovered in Stratum II.

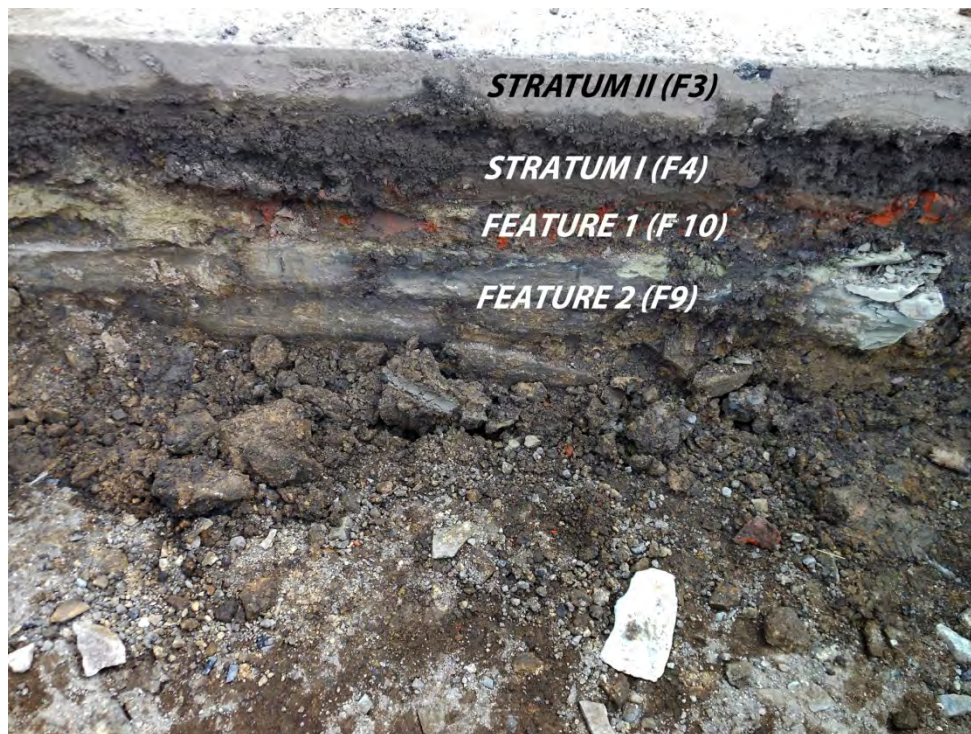


Figure 87: Detail of the southern wall of Trench A showing the 31 Fulton Street site with identified strata and features.

FEATURES

Two cultural features were identified at the 31 Fulton Street site. They include a layer of destruction debris (Feature 1) and a building foundation (Feature 2).

Feature 1 (Field Designation F10)

Feature 1 represents a discontinuous layer of destruction debris related to the 1958 demolition of this portion of the Lower Hill District for the construction of the Arena (Pittsburgh Sun Telegraph Staff 1958). The feature consisted of an unconsolidated matrix of bricks. A small section of the feature was identified in the western quarter of the southern profile of Trench A. It occurred immediately above the building foundation. Feature 1 extended from approximately 18 cm (7.1 in) bgs to a maximum depth of 32 cm (12.6 in) bgs. No artifacts were recovered in Feature 1.

Feature 2 (Field Designation F9)

Feature 2 represents the northern masonry foundation wall of a building at 31 Fulton/Fullerton Street. Consisting of uncoursed rubble, the wall occurred continuously across the 750 cm (295.3 in) length of the southern profile of Trench A (Figure 88). The top of the wall originated at a depth of approximately 18 to 32 cm (7.1-12.6 in) bgs. It was overlaid by Stratum II in the eastern three-quarters and Feature 1 in the western quarter of the profile. The feature extended to the base of the excavation in this portion of the trench at approximately 56 to 68 cm (22.0-26.8 in) bgs. The foundation wall in the western quarter of the profile showed a 10-cm (3.9-in) drop in elevation. This particular feature of the wall may correspond to a stone platform for the building's front porch as seen on a historic streetscape photograph that partially shows the building (PCPC 1930 see Figure 45). No artifacts were recovered in Feature 2.

SUMMARY AND RECOMMENDATIONS

The 31 Fulton Street site was identified during Phase II investigations of the 29 Fulton Street site and consists of a building foundation and a 1958 demolition episode. In addition, two strata related to the modern use of the site area as a parking lot were identified. No artifacts were recovered from any of the cultural features at the 31 Fulton Street site.

Only the northern edge of this site was investigated. The foundation wall that comprises the identified portion of this site was recorded as part of the investigation of the 29 Fulton Street site. The excavations were not expanded. Historic documentary research was conducted for this address and the findings were unremarkable. Based on the limited amount of excavation at this site no determination of eligibility can be made.

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31 FULTON STREET TRENCH A - SOUTH WALL PROFILE

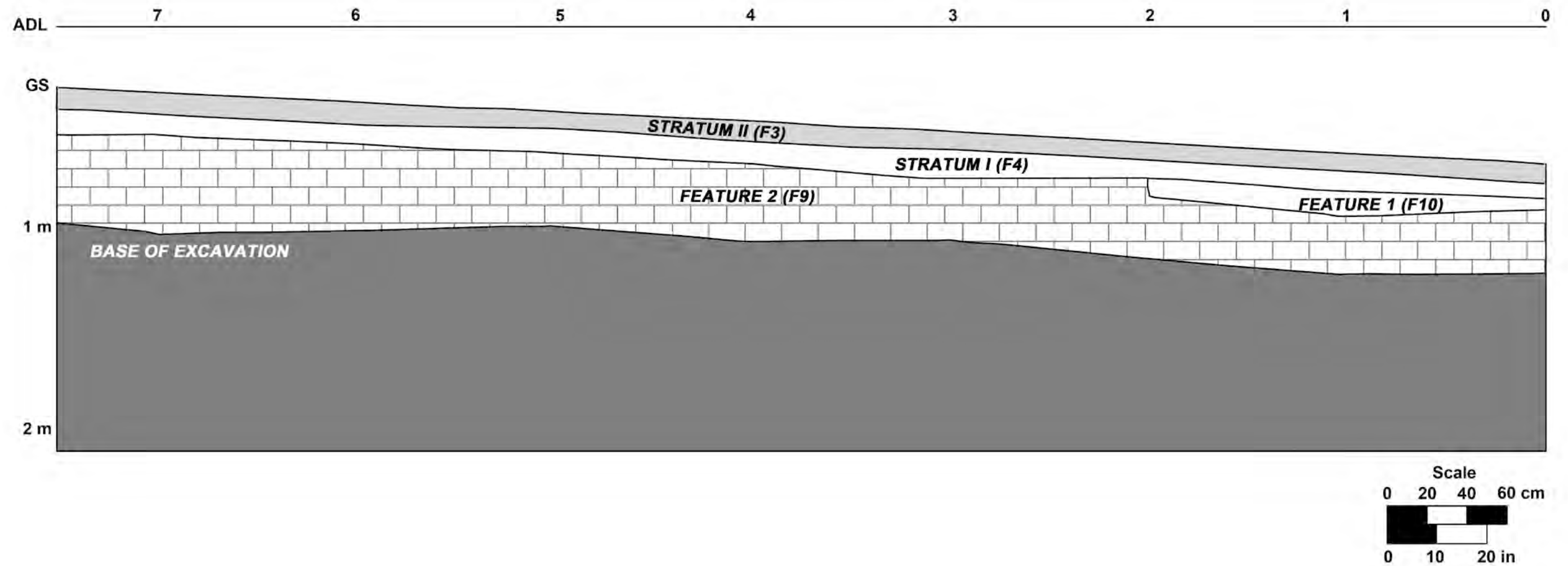


Figure 88: South wall profile of Trench A, showing the foundation wall (Feature 2) of 31 Fulton Street site.

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88-90 Crawford Street Site (36AL636)

The 88-90 Crawford Street site is located in the southeastern corner of Lot 2-C-300 approximately 58 m (190 ft) north of the intersection of Crawford Street and Centre Avenue. The site is situated within an asphalt parking lot at an elevation of 275 m (901 ft) amsl (Figure 54). Based on the boundaries of the historic lot (Hopkins 1910), the site area measures approximately 149.71 m² (1,611.47 ft²). The site was identified during the Phase I portion of the survey based on the recovery of cultural features and historic artifacts in Trench 4. Trench 4 measured approximately 4.6 m (15.2 ft) in length (N-S) by 1.6 m (5.2 ft) in width (E-W), and was excavated to a maximum depth of 84 cm (33.1 in). UTM coordinates for the southwest corner of Trench 1 are N4477254.97 E585946.71. This trench had been emplaced to identify cultural features related to mid-nineteenth through early twentieth century dwellings along Crawford Street.

Additional features and artifacts were identified after the expansion of the trench during the Phase II effort. The expanded trench was designated Trench A during the Phase II fieldwork (Figure 89). It measured approximately 6.8 m (22.3 ft) in length (E-W) and 6.1 m (20.0 ft) in width (N-S), and was excavated to a maximum depth of approximately 2.5 m (8.2 ft). UTM coordinates for the southwest corner of Trench A are N4477252.49 E585943.34. In total, 41.48 m² (446.49 ft²) of the site was investigated, encompassing 27.7 % of the site area. Figure 90 shows the location of the excavation trenches in relation to the historic building footprints based on the 1910 Hopkins map.

The 88-90 Crawford Street site consists of a courtyard, a retaining wall, and a privy in the rear of the historic lots at 88 and 90 Crawford Street as well as a wood and tin outbuilding and a concrete structure in the alley west of the lots, all capped by a demolition episode dating sometime ca. 1944. In addition, six strata were identified, including one natural soil horizon, three historic period horizons, and two horizons related to the modern use of the site area as a parking lot. Stratigraphy and cultural features observed at the 88-90 Crawford Street site are described below and summarized in Table 15.

Stratigraphy

Six strata were identified during the archaeological investigations of the 88-90 Crawford Street site. They are labeled in ascending order from oldest (lowest) to youngest (uppermost) and are described below.

Stratum I (Field Designation F33)

Stratum I represents a B horizon consisting of a light yellowish brown (10YR 6/4) silty clay loam with siltstone and manganese inclusions. It was identified during the Phase II investigation beneath the demolition layer (Feature 1) at approximately 178 cm (70.1 in) bgs in the western edge of Trench A and beneath the privy (Feature 4) at approximately 206 (81.1 in) bgs in the south-central portion of the trench.

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Figure 89: Plan view of Trench A, showing identified Strata and Features.

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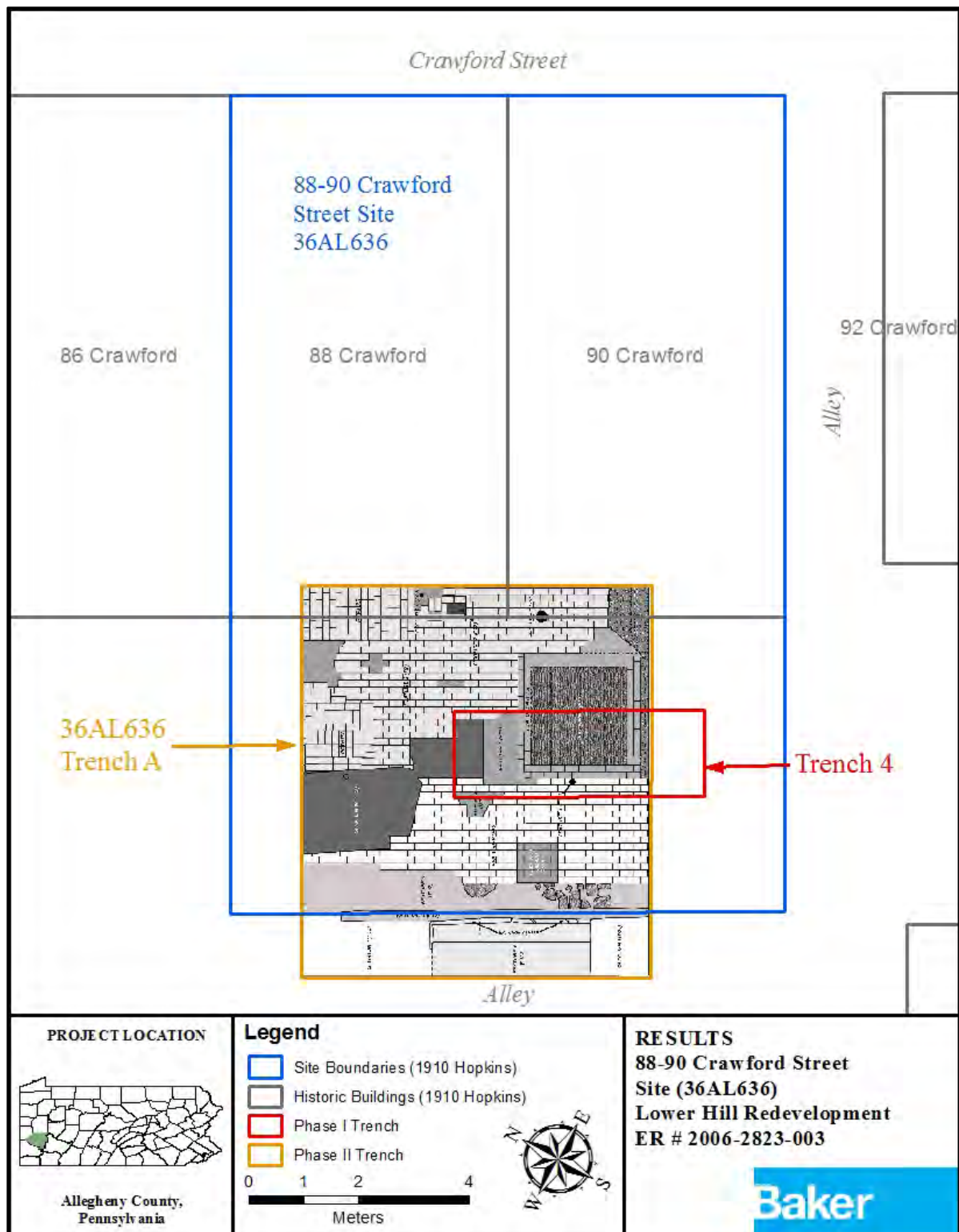


Figure 90: Excavation trench locations in relation to historic building footprints at the 88-90 Crawford Street site.

Table 15: Description of Stratigraphy and Features Observed at the 88-90 Crawford Street Site (36AL636).

Stratum/ Feature #	F #	Location	Munsell	Description	Stratigraphic Sequence
Stratum VI	F3	Trench 4, Trench A	-	Asphalt parking lot	Uppermost level 0 to 10 cm (0 to 3.9 in) bgs
Stratum V	F4	Trench 4, Trench A	Brown (10YR 4/3) to a very dark grayish brown (10YR 3/2) gravely silty sand	Gravel parking lot	Underlies Stratum VI 10 to 14/18 cm (3.9 to 5.5/7.1 in) bgs
Stratum IV	F19	Trench A	Black (10YR 2/1) cindery silt loam	Historic soil horizon	Underlies Feature 1 60 to 70 cm (23.6 to 27.6 in) bgs
Stratum III	F8	Trench 4	Mottled brownish yellow (10YR 4/2) and dark grayish brown (10YR 4/2) clay	Historic soil horizon	Underlies Feature 2 66 to 80 cm (26.0 to 31.5 in) bgs
Stratum II	F18	Trench A	Black (10YR 2/1) silt loam	Historic soil horizon	Underlies Feature 6 58/72 to 63/75 cm (22.8/28.3 to 24.8/29.5 in) bgs
Stratum I	F33	Trench A	Light yellowish brown (10YR 6/4) silty clay loam	B horizon	Underlies all strata and cultural features 178/206 cm 70.1/81.1 in) bgs
Feature 1	F7/F11	Trench 4, Trench A	-	Compressed layer of brick and stone from 1940-1948 demolition of nearby buildings including 88 and 90 Crawford Street	Underlies Stratum V 14/18 to 60/70 cm (3.9/7.1 to 23.6/27.6 in) bgs
	F5	Trench 4, Trench A	Mottled brownish yellow (10YR 6/8) and dark grayish brown (10YR 4/2) clay	Lens in F7/F11	
	F6			Lens of roofing slate and composite roofing material in F7/F11	
	F25		Black (10YR 2/1) cindery silt loam	Lens in F7/F11	
	F26		Yellowish brown (10YR 5/6) clay	Lens in F7/F11	
Feature 2	F9	Trench 4, Trench A		Brick courtyard	Underlies Feature 1 60 cm (23.6 in) bgs
	F21	Trench 4, Trench A		Vertical cast iron pipe in floor of F9	
	F22	Trench 4, Trench A		Drainage opening in floor of F9	
	F23	Trench 4, Trench A		Cast iron ventilation pipe in floor of F9	
Feature 3	F8			See Stratum III	
Feature 4	F10	Trench 4, Trench A		Brick-lined privy	Underlies Features 1 68 to 220 cm (26.8 to 86.6 in) bgs
	F24	Trench 4, Trench A		Vertical cast iron pipe adjacent to western exterior of F10	
	F34	Trench 4, Trench A		Copper pipe at base of eastern interior of F10	
Feature 5	F15	Trench A		Masonry stone retaining wall	Underlies Feature 1 68 to 178 cm (26.8 to 70.1 in) bgs

Stratum/ Feature #	F #	Location	Munsell	Description	Stratigraphic Sequence
Feature 6	F12	Trench 4, Trench A		Brick courtyard	Underlies Feature 1 70 cm (27.6 in) bgs
	F14/F29	Trench 4, Trench A		Area of missing bricks in F12	
Feature 7	F13	Trench 4, Trench A	Yellowish brown (10YR 5/4) silty clay	Historic fill	Underlies Feature 1 78 cm (30.7 in) bgs
Feature 8	F18	Trench A		Remnants of concrete structure	Underlies Feature 1
Feature 9	F17	Trench A		Wood and galvanized tin shed or outbuilding	Underlies Feature 1
Feature 10	F27	Trench A		Brick courtyard	Underlies Stratum II 63/75 to 69/81 cm (24.8/29.5 to 27.2/31.9 in) bgs
Feature 11	F28	Trench A	Yellowish brown (10YR 5/6) clay	Prepared floor for Feature 11	Underlies Feature 11 69/81 cm (27.2/31.9 in) bgs

Stratum II (Field Designations F18)

Stratum II represents a buried historic soil horizon consisting of black (10YR2/1) silt loam. It was identified in between two levels of brick courtyard (Feature 6 and Feature 10) during the Phase II excavation of TU N501.50 W501.71. The stratum originated between 58 and 72 cm (22.8-28.3 in) bgs and extended to a maximum depth of 63 to 75 (24.8-29.5 in) bgs, with a slight dip to the south. The stratum likely accumulated as sheet wash on the surface of Feature 10 before it was bricked over to create the surface of Feature 6.

Fifty-two (52) artifacts were recovered in Stratum II. The ceramic assemblage consists of 10 earthenware container sherds, 18 whiteware sherds, and 6 porcelain artifacts. The whiteware sherds are comprised of four plate sherds and 14 unidentified tableware sherds. Five of the sherds are decorated with transfer printed designs. One sherd exhibits a portion of a maker's mark that resembles that of Whittaker & Co, Hallfield Pottery, Hanley, consisting of a ring of flowers surrounding the name "W & Co./Hanley", possibly separated by the pattern name. This mark was in use ca. 1886-1892 (Godden 1964:667). The porcelain portion of the assemblage consists of three doll parts, two tableware sherds, and a button. The doll parts are small and include a lower leg and foot, the upper torso and left arm, and a portion of a head with molded hair.

The glass assemblage is comprised of 28 fragments including 13 container, 7 window pane, 5 tableware, 2 unidentified fragments, and 1 lamp cover fragment. The container and tableware fragments are nondescript with the exception of a bottle neck that exhibits a finishing tooled lip (ca. 1820s - 1920s; Jones and Sullivan 1985:43).

Stratum III (Field Designation F8)

Stratum III represents a buried historic soil horizon consisting of a mottled brownish yellow (10YR 4/2) and dark grayish brown (10YR 4/2) clay. It was identified in the east profile of Trench 4 below the courtyard (Feature 2) at approximately 66 cm (26.0 in) bgs. It extended to base of Trench 4 excavations at approximately 80 cm (31.5 in) bgs. The horizon was not clearly defined during the Phase II investigation.

Stratum IV (Field Designation F19)

Stratum IV represents a 10 cm (3.9 in) thick buried historic soil horizon consisting of black (10YR 2/1) cindery silt loam. The stratum was limited to the north-central section of Trench A where it was identified immediately below the demolition layer (Feature 1) at approximately 60 cm (23.6 in) bgs and over the brick courtyard (Feature 6). The stratum likely resulted from the accumulation of sheet wash on the surface of the courtyard.

Stratum V (Field Designation F4)

Stratum V consists of a 4 to 8 cm (1.6-3.1 in) thick layer of brown (10YR 4/3) gravelly silt loam that extended to an approximate depth of 14 to 18 cm (5.5-7.1 in) bgs. The stratum occurred continuously across the site area investigated by Trench 4 and Trench A. It represents a former gravel parking lot surface for the Arena. According to Raymond Wolowicz (personal communication, March 2013), General Manager of Parking for the Consol Energy Center, a gravel parking lot was in operation until the 1980s when it was replaced by an asphalt surface. All cultural features related to the 88-90 Crawford Street site were identified below Stratum V.

Stratum VI (Field Designation F3)

Stratum VI is the uppermost stratum at the 88-90 Crawford Street site. It consists of an approximately 10 cm (3.9 in) thick layer of asphalt used as the existing parking lot surface. The stratum extends across the entire site area.

Features

Nine cultural features were identified during the archaeological investigations of the 88-90 Crawford Street site. The majority of features are associated with the courtyard in the rear of the historic lots at 88 and 90 Crawford Street. The features are described below.

Feature 1 (Field Designations F5, F6, F7, F11, F25, and F26)

Feature 1 represents a continuous layer of destruction debris related to the demolition of a section of row houses (82 to 90 Crawford Street) that occurred ca. 1944. The feature consisted of an unconsolidated matrix of brick and stone (F7/F11) with lenses of roofing slate and composite roofing material (F6), mottled brownish yellow (10YR 6/8) and dark grayish brown (10YR 4/2) clay (F5), black (10YR 2/1) cindery silt loam (F25), and yellowish brown (10YR 5/6) clay (F26). It was identified in Trench 4 during the Phase I survey and re-identified after the expansion of the trench during the Phase II investigation. The feature covered a historic surface defined by a courtyard (Features 2 and 6) behind the buildings at 88 and 90 Crawford Street. It occurred immediately below Stratum V across the tested site area, and, in general, extended to a depth of 60-70 cm (23.6-27.6 in) bgs. It exceeded those depths in two areas, including a depth of 177 cm (69.7 in) along the western edge of Trench B where a drop in elevation of the historic surface was marked by a retaining wall (Feature 5) as well as a maximum depth of 206 cm (81.1 in) bgs within the privy (Feature 4). Feature 1 was removed mechanically to facilitate documentation of the underlying cultural features (Figures 91 and 92).

A total of 355 artifacts were recovered from Feature 1. The assemblage includes 250 glass, 15 ceramic, 82 metal, and 8 miscellaneous artifacts.

The largest portion of the artifact assemblage is the glass. The 250 glass fragments include 238 identified as containers, including 32 whole containers. The containers are further identified as 20 beverage, 7 toiletry, 6 pharmaceutical, 6 food, 6 miscellaneous, and 192 from unidentified containers. The beverage containers include liquor, milk, and soda bottles, several of which exhibit diagnostic attributes; either

embossed product labels or maker's marks (Table 16). The toiletry and pharmaceutical bottles also exhibit identifying attributes; including aspirin, cod liver oil, and hair pomade containers.

Non-container glass recovered in Feature 1 consists of 5 fragments of unidentified glass tubing including one with a cased white stripe and a blue center stripe, 4 light bulb fragments, 3 window pane fragments, one cold cream jar lid fragment, 1 radio tube, and 1 fragment of a Depression glass tableware vessel. The Depression glass exhibits the Florentine pattern, "Poppy No. 2". This pattern was manufactured by the Hazel Atlas Glass Company between 1932 and 1935.

Table 16: Diagnostic Glass Artifacts Recovered in Feature 1

Artifact type	Date Range	References	Diagnostic Attribute	Qty.
Liquor			Flask Shape	1
	1935-1964	Lindsey 2012	Portion or whole embossed statement: FEDERAL LAW FORBIDS SALE OR REUSE OF THIS BOTTLE.	7
Milk	post 1886	Pittman 1987:56	Bottle shape and text.	6
	1930s - early 1950s	Miller and Sullivan 1984:93	Bottle shape, Embossed "RIECK" on bottle neck/shoulder. Reick's Dairy was established in Pittsburgh area around 1872.	1
Soda	1929-1954	Toulouse 1971:403	Bottle shape, Owens-Illinois mark and "G6" on base.	1
UID Beverage			Bottle shape	3
	1904 - early 1950s	Jones and Sullivan 1985:38-39	Bottle shape, Owens Illinois Glass Company mark	1
Condiment	1920-1964	Toulouse 1971:239	Container shape, Hazel Atlas Glass Company maker's mark.	1
	1920-1964	Toulouse 971:239	Container shape, Hazel Atlas Glass Co. mark on base.	1
Food Jar			Container shape	1
	1930s - early 1950s	Miller and Sullivan 1984:93	Container shape, Valve mark on base.	1
	1937 - 1968	Anchor Hocking Glass Museum 2003	Anchor Hocking Glass Corporation "anchor over H" mark used 1937 to 1968. Lug seat-type closure.	1
Pepper Sauce	1932-1953	Toulouse 1971:271	Container shape, Maker's mark is J within a Keystone:Knox Glass Bottle Co., Jackson, Miss., 1932-1953	1
Beaker			Container shape	1
Clorox Bottle			"...LORO..." is embossed on the heel	1

Artifact type	Date Range	References	Diagnostic Attribute	Qty.
Pennzoil Bottle			Embossed text on shoulder: "ONE QUART TO LINE". Base is embossed with an anchor, "5" to the left, "7" to the right, and "L-865-A", Anchor Hocking. A portion of the painted product label is present. Pennzoil label with Liberty Bell.	3
Bayer Aspirin	1940	Lockhart 2004	Embossed label, maker's mark of Owens-Illinois Glass Company.	1
Sloan's Emulsion Cod Liver Oil	1942	Lockhart 2004:2-3	Embossed label, maker's mark of Owens-Illinois Glass Company.	1
Sloan's Liniment			Embossed label	1
Father John's Medicine			Embossed label	1
UID Pharmaceutical	1924-early 1950s	Toulouse 1971:293; Jones and Sullivan 1985:38-39	Knox Glass Bottle Co., Knox, PA mark used 1924-1968. Gradation marks on front panel 10-20-30-40-50.	1
UID Pharmaceutical	ca. 1920 - early 1950s	Jones and Sullivan 1985:38-39; Tuolouse 1971:242	Hazel Atlas Glass Company used 1920-1964.	1
Vapo-Rub			Embossed label.	1
Cold Cream			Glass type and container shape	1
Cold Cream			Small jar marked "PONDS" on base.	1
Hair Pomade	ca. 1942 - 1960s		Base embossed: "DIXIE PEACH/8/HAIR POMADE/LANDER/THE ORIGINAL" Pomade used from ca. 1942 - 1960s.	1
Perfume/Cologne	1904 - early 1950s	Jones and Sullivan 1985:38-39	Base stamped: "MADE IN USA/ U.S. DES/PAT. APPLD. FOR"; threaded closure for screw cap	1
Vaseline			Base is embossed: "CHEESEBROUGH/7/MFG/CO.CD/NEW YORK".	1
UID Cold Cream	ca. 1932 - 1953	Toulouse 1971:271	Glass type and container shape Knox Glass Bottle Co., Jackson, Miss. mark. Used between ca. 1932 - 1953.	1
Woodbury Lotion	post ca. 1938	Toulouse 1971:48	Anchor Hocking Glass Company mark and product label	1
Total				45

The ceramic portion of the assemblage consists of 13 whiteware sherds, one semi-vitreous sherd and a single stoneware sherd. The whiteware is further identified as eight bowl fragments and five sherds of unidentified tableware. The bowl fragments include one that exhibits a maker's mark of Taylor, Smith and Taylor, Chester, WV, 1899/1900 – 1982 that was used prior to 1920; six from a single vessel decorated with a Willow like transfer printed pattern that likely dates to the early twentieth century; and one that exhibits a decal decoration with a floral design. The semi-vitreous sherd is a portion of a large basin, possibly for scientific or pharmacological use.

The 82 metal artifacts are comprised of 69 iron or steel, 5 copper, 3 aluminum, 2 brass, 2 nickel silver spoons, and 1 tin artifact. The iron and steel artifacts primarily consist of heavily oxidized items such as unidentified nails, a railroad spike, pipe fragments, wire, and can fragments. However, artifacts such as crown style bottle caps and a table knife with a wood handle were also recovered. The three aluminum artifacts consist of fragments of a non-descript band. The copper artifacts are unremarkable with the exception of a wheat penny. Wheat pennies were produced from 1909 to 1958, however, the penny is corroded and the date is not legible. The brass artifacts are further identified as a suspender strap adjuster and the pin back for the tin Lone Ranger pin in this assemblage. One of the nickel silver spoons is backstamped "FEDERAL". This is the mark of the Federal Silver Company, NYC that was used ca. 1920 – 1960 (silvercollection.it 2013). The tin Lone Ranger pin includes a picture of the Lone Ranger in the center of the horseshoe below the text "LONE RANGER" and above additional text that may say "Silver's Lucky Horseshoe". This badge dates from the 1930s (collectible pinbacks 2013).

The miscellaneous artifacts include 4 asphalt shingle fragments, 1 dry cell battery rod, one electrical fuse with an embossed patent date of 1920, 1 leather shoe fragment, and one heart-shaped plastic pin.

Faunal material recovered in Feature 1 consisted of 34 bone and bone fragments. The assemblage includes 23 *Aves* sp. bones, 4 *Sus scrofa*, 4 unidentified mammal bones, 2 *Bos taurus*, and 1 *Ostreichthyes* sp.

Feature 1 was likely created when this portion of the block was demolished in the early 1940s. The artifact assemblage conforms to this timeline. The 23 whole containers recovered from Feature 1 date between the early 1920s and the 1940s. The assemblage also includes the two bottles with maker's marks noting the exact year of their manufacture, the Bayer Aspirin bottle and the Scott's Emulsion cod liver oil bottle.

Feature 2 (Field Designations F9 and F21-F23)

Feature 2 represents a brick courtyard and associated architectural elements comprising a portion of the historic surface in the rear of the buildings at 88 and 90 Crawford Street (Figure 91). It was initially identified in the east wall of Trench 4 underlying Feature 1 at approximately 60 cm (23.6 in) bgs. Expansion of the trench during the Phase II investigation uncovered additional sections of the feature. Feature 2 occurred across the eastern half of Trench B except where the privy (Feature 4) and historic fill (Feature 7) were identified (Figure 93). The brick courtyard (F9) consisted of un-mortared bricks placed on a north-south long axis except for two areas that were likely repaired. Additional damage to the courtyard was evident through three areas of missing bricks. The courtyard also contained three architectural elements related to utilities at the site, including a vertical cast iron pipe (F21), a drainage opening in the courtyard (F22), and a cast iron ventilation pipe (F23) that may have been associated with the privy (Feature 4) (Figure 94).

Feature 3 (Field Designation F8)

Recorded as Feature 3 at the completion of the Phase I survey, F8 actually represents Stratum III (see above).



Figure 91: Photograph of the 88-90 Crawford Street site showing the identified features, facing east.

SITE 36AL636 - SOUTH WALL PROFILE

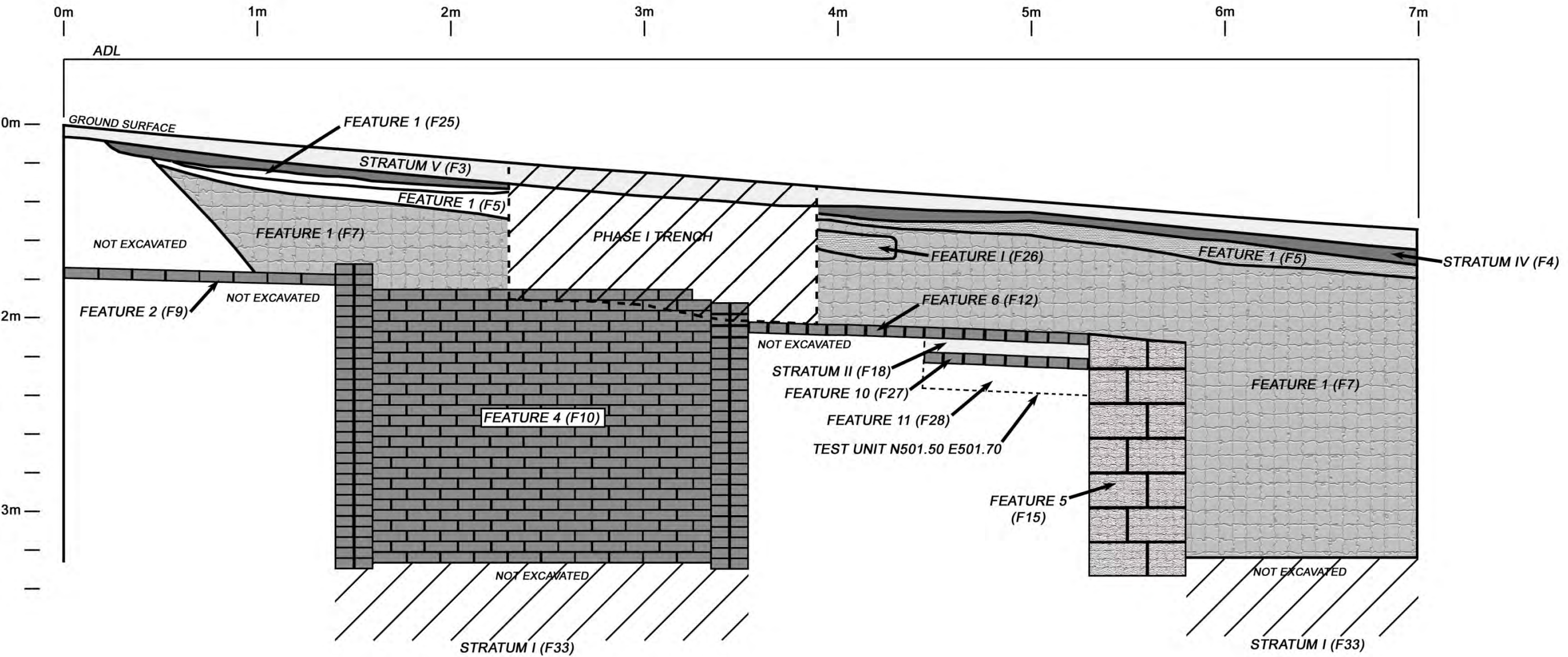


Figure 92: South wall profile of Trench A showing the vertical extent of identified Features and Strata.

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Figure 93: Photograph showing Feature 2 and the area of repaired brick courtyard.

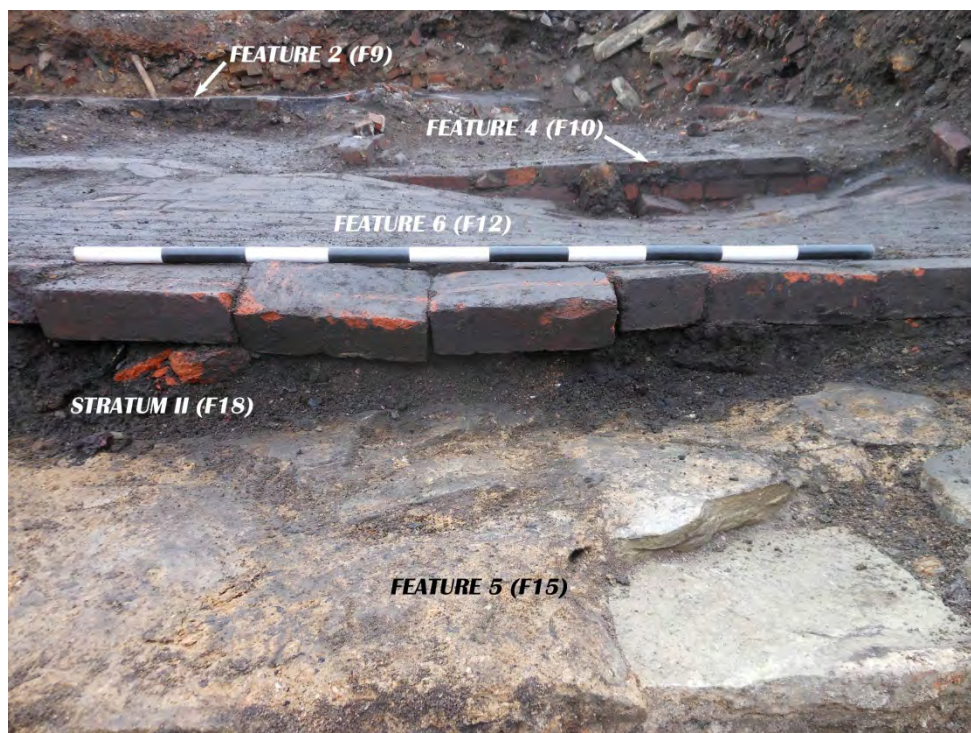


Figure 94: Photograph showing profile view of the southern portion of the 88-90 Crawford Street site with identified features.

Feature 4 (Field Designations F10, F24, and F34)

Feature 4 represents a brick-lined privy (F10) located in the courtyard behind the buildings at 88 and 90 Crawford Street. The privy likely contained the outside toilets indicated by the 1937 WPA Home Survey of the residences at 88 and 90 Crawford Street (WPA 1937). A portion of the feature was identified in the center of Trench 4 beneath Feature 1 at approximately 68 cm (26.8 in) bgs. The full extent of it, however, was uncovered during the excavation of Trench A (Figure 95). Roughly square, Feature 4 measured 232 by 214 cm (91.3 by 84.3 in). The vault measured 176 by 170 cm (69.3 by 66.9 in), with a depth of approximately 152 cm (59.8 in) below the historic surface (Figure 96). The brick walls lining the privy were two courses wide, and on average, measured 20 cm (7.9 in) in width. The upper portion of the east wall privy exhibited damage.

Initial sampling of the fill in the vault through the excavation of a test unit revealed that the privy had been in-filled by Feature 1 during the demolition of nearby buildings. As a result, Feature 1 was removed mechanically in an attempt to identify any culture-bearing deposits related to its. No such deposits were encountered. The lack of historic deposits within the privy suggests that it had been cleaned at some point before the demolition of the buildings. Stratum I was reached beneath the shaft at approximately 206 cm (81.1 in) bgs.

In addition to the brick-lined privy, two architectural elements possible related to its use are included as part of Feature 4. F24 represents a vertical cast iron pipe placed adjacent to the west wall of the privy. F34 represents a section of a copper pipe placed at the base of the east wall. The functions of both elements are undetermined.

Historic photographs from the Lower Hill District suggest that wooden structures of varying sizes were placed over the privy vaults (Figure 97). These structures may have been marked with the corresponding house or apartment number and vertical, cast iron pipes were used to ventilate some of the structures. Clean-out openings are also evident in some of the photographs. Evidence of a wooden structure associated with Feature 4 was not encountered and a clean-out opening was not discernible during excavations of the feature.

Feature 5 (Field Designation F15)

Feature 5 represents a section of wall constructed from uncut, irregularly-coursed rubble used to terrace the rear of the historic lots fronting Crawford Street, including 88 and 90 Crawford Street (Figures 94 and 98). The feature was identified in the western section of Trench A during the Phase II investigation. The wall extended from south to north paralleling the west wall of the trench. Its vertical extent occurred from approximately 68 cm (26.8 in) bgs to a maximum depth of 178 cm (70.1 in) bgs, where it sat on a stone footer. On average, the wall measured 50 cm (19.7 in) in width. Based on historic mapping (Hopkins 1910), the retention wall marked the western boundary of 18 lots fronting Crawford Street, spanning 121.9 m (400 ft) from 56 to 90 Crawford Street. The terraced lots sat above an unnamed alley way in between and paralleling Crawford and Fulton/Fullerton Streets.

Feature 6 (Field Designations F12 and F14/29)

Feature 6 represents a brick courtyard comprising a portion of the historic surface in the rear of the buildings at 88 and 90 Crawford Street. It was initially identified in the northwest corner of Trench 4 underlying Feature 1 at approximately 70 cm (27.6 in) bgs. Expansion of the trench during the Phase II investigation uncovered additional sections of the feature (Figure 91). Feature 6 occurred across the central portion of Trench B. The brick courtyard (F12) consisted of un-mortared bricks placed on a north-south long axis. It displayed some damage, evident by a small area of missing bricks (F14/F29). In addition, the northern section of the courtyard was covered by Stratum IV.

SITE 36AL636 - EAST WALL PROFILE

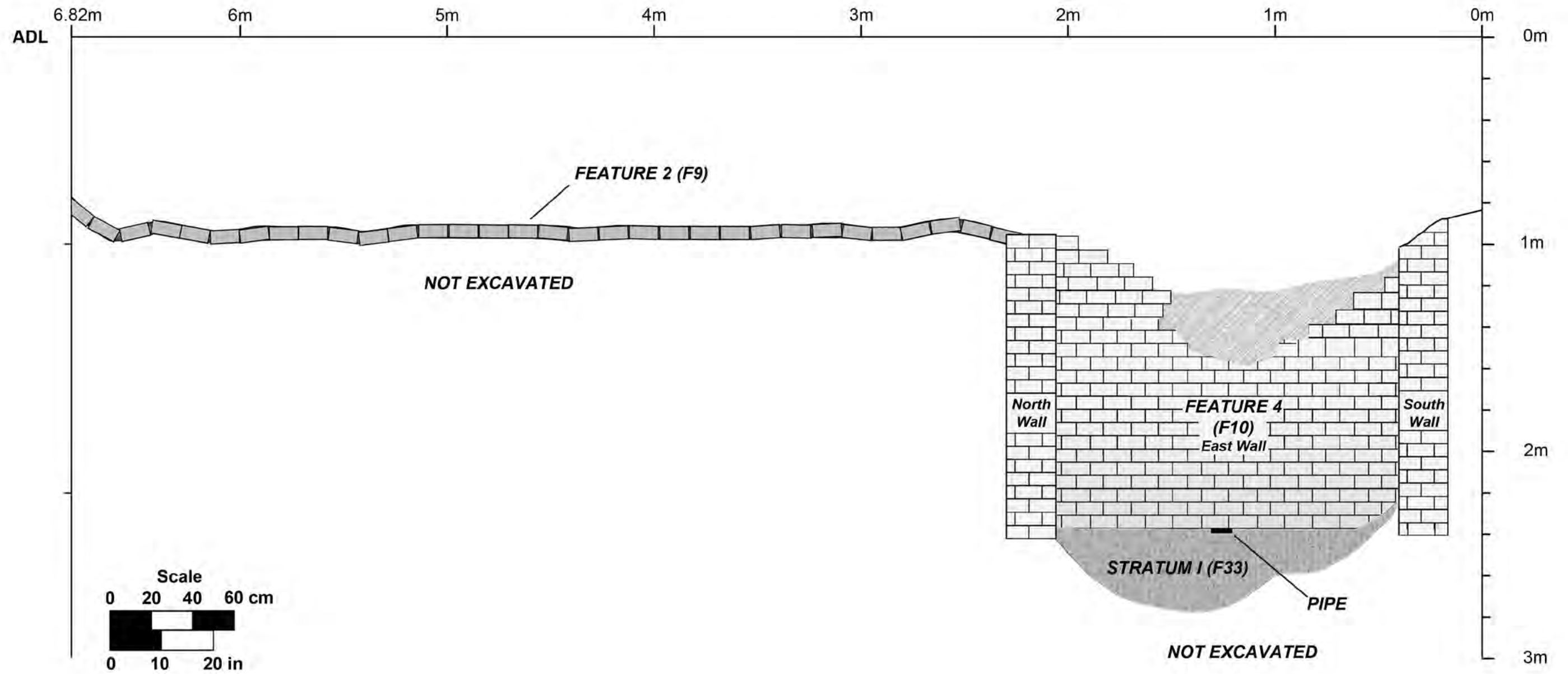


Figure 95: East wall profile of Trench A, showing the vertical extent of Feature 4.

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Eleven artifacts were recovered during the investigation of Feature 6. The assemblage consists of 3 ceramic sherds, 7 glass fragments, and a single heavily oxidized nail fragment. The ceramic sherds are described as 1 whole brick, possibly hand struck; one stoneware crock fragment, and a single whiteware sherd from an unidentified tableware vessel. The glass fragments consist of seven unidentified container fragments, one of which exhibits a maker's mark: "Duraglas" in script. This mark has been used by Owens Illinois Glass Company since 1940 (Toulouse 1971:403).

Faunal material recovered in Feature 6 consisted of three bone fragments; identified as 2 Aves sp. and 34 unidentified mammal bones. The mammal bones are classified as 32 rib fragments, 1 forelimb, and 1 indeterminate.



Figure 96: Photograph of Feature 4, after excavation.



Figure 97: Historic photograph of a courtyard privy in the Hill District.

(Courtesy of Pittsburgh City Photographer Collection)

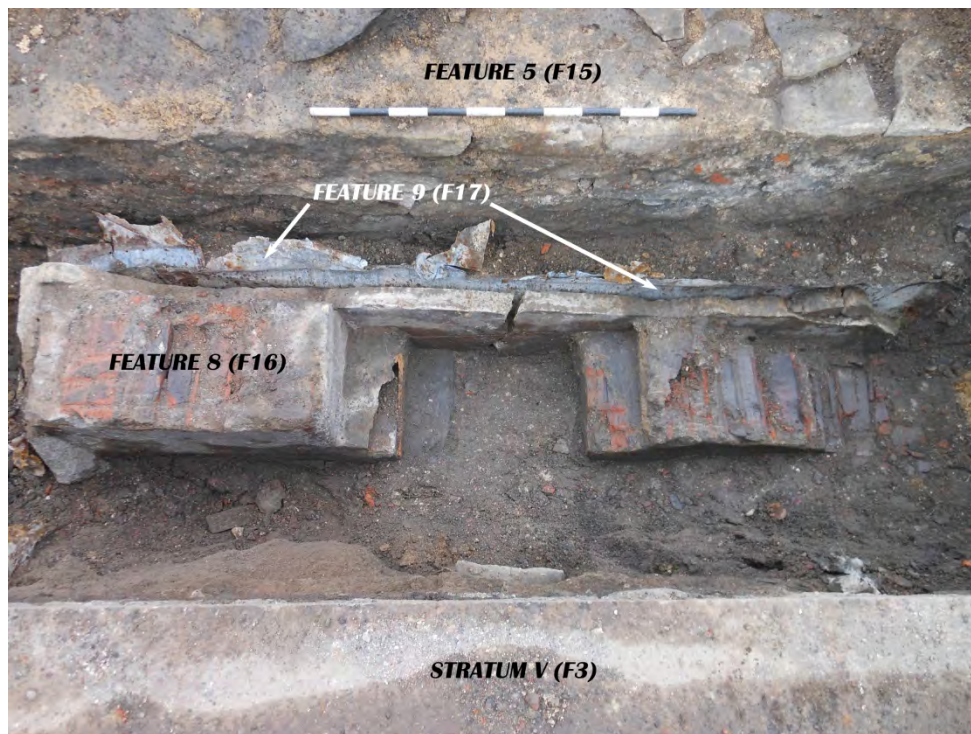


Figure 98: Photograph showing Feature 5 in relation to Feature 9 and Stratum V, facing east.

Feature 7 (Field Designation F13)

Feature 7 represents a deposit of historic fill consisting of yellowish brown (10YR 5/4) silty clay. A portion of the feature was initially identified below Feature 1 at approximately 78 cm (30.7 in) bgs during the excavation of Trench 4. Excavation of Trench A during the Phase II investigation uncovered the full extent of the feature. Roughly square, it was located adjacent to the northern wall of Feature 4. Feature 7 measured 112 by 102 cm (44.1 by 40.2 in). The exact nature of the feature is uncertain, however, it may have resulted from the accumulation of soil within a section of the courtyard missing its brick surface.

Two ceramic artifacts were recovered in Feature 7, a terra cotta drainage pipe fragment and a whiteware sherd from an unidentified tableware vessel. Faunal material recovered in Feature 7 consists of a single *Bos taurus* rib.

Feature 8 (Field Designations F16)

Feature 8 represents remnants of a concrete structure of undetermined functioned. It was identified during the Phase II investigation in the west-central section of Trench A. The feature occurred at street level below the terraced courtyard west of the historic lots fronting Crawford Street. Feature 8 consisted of a two concrete piers and a thin, vertical concrete slab lining the exterior of the piers. The top of the piers were lined with brick tiles. The feature measured approximately 276 by 40 cm (108.7 by 15.7 in). In addition, the feature appeared to have been encased by a tin and wood structure (see Feature 9).

Feature 9 (Field Designation F17)

Feature 9 represents remnants of a shed or outbuilding that occurred at street level below the terraced courtyard west of the historic lots fronting Crawford Street (Figure 99). It was identified during the Phase II investigation in the west-central section of Trench A. The structure was constructed from wooden boards and, based on the direction of extant nails; its interior was lined with galvanized tin. Floor boards were preserved beneath the tin and staining from the wall boards was evident on the retaining wall (Feature 5) adjacent to the feature. In addition, thin, flat stones were placed over the tin on the floor of the structure. Feature 9 measured 276 m (108.7 in) north-south, and only 100 cm (39.4 in) east-west was exposed since the feature extended into the west wall of Trench A. As noted above, Feature 8 occurred in what would have been the interior of this structure.

Feature 10 (Field Designation F27)

Feature 10 represents a brick courtyard comprising a portion of the historic surface in the rear of the buildings at 88 and 90 Crawford Street. It was identified beneath Stratum II and above Feature 11 during the Phase II excavation of TU N501.50 W501.71 (Figure 100). Consisting of un-mortared bricks one course thick, the feature originated between 63 to 75 (24.8-29.5 in) bgs and extended to a maximum depth of 69 to 81 cm (27.2 to 31.9 in) bgs, with a slight dip to the south. The stratigraphic position of Feature 10 indicates that it represents an older historic surface than the other brick courtyards (Features 2 and 6).



Figure 99: Photograph showing Feature 9.

Feature 10 appears to have been constructed on a prepared clay floor (Feature 11) as the original historic surface, and buried by sheet wash (Stratum II) over time before a second brick surface was added to the courtyard (Figure 101).

Thirty-eight artifacts were recovered during the investigation of Feature 10. The assemblage includes 12 ceramic sherds, 16 glass fragments, 9 metal fragments, and a writing slate fragment.

The ceramic assemblage is further identified as 5 whiteware sherds, 3 porcelain artifacts, 2 stoneware crock sherds, and 1 brick. The whiteware sherds are all described as tableware, one of which is decorated with a flow black transfer printed design dating to ca. 1828 – 1867 (Stoltzfus and Snyder 1997:15; Samford 1997:23-24). Two of the other whiteware sherds are decorated; however, the techniques and styles are not distinctive. The porcelain artifacts consist of two unidentified tableware sherds and a button.

The 16 glass fragments are comprised of 14 container fragments, a canning jar lid liner fragment, and an unidentified fragment described as colorless with one surface cased in pink. The container fragments include one wine bottle fragment and a neck and lip fragment of an unidentified pharmaceutical bottle. The remaining fragments are unidentified.

The nine metal fragments consist of eight heavily oxidized nail fragments, and the bowl portion of a nickel silver ladle.

SITE 36AL636 - EAST PROFILE OF TEST UNIT N501.50 E501.70

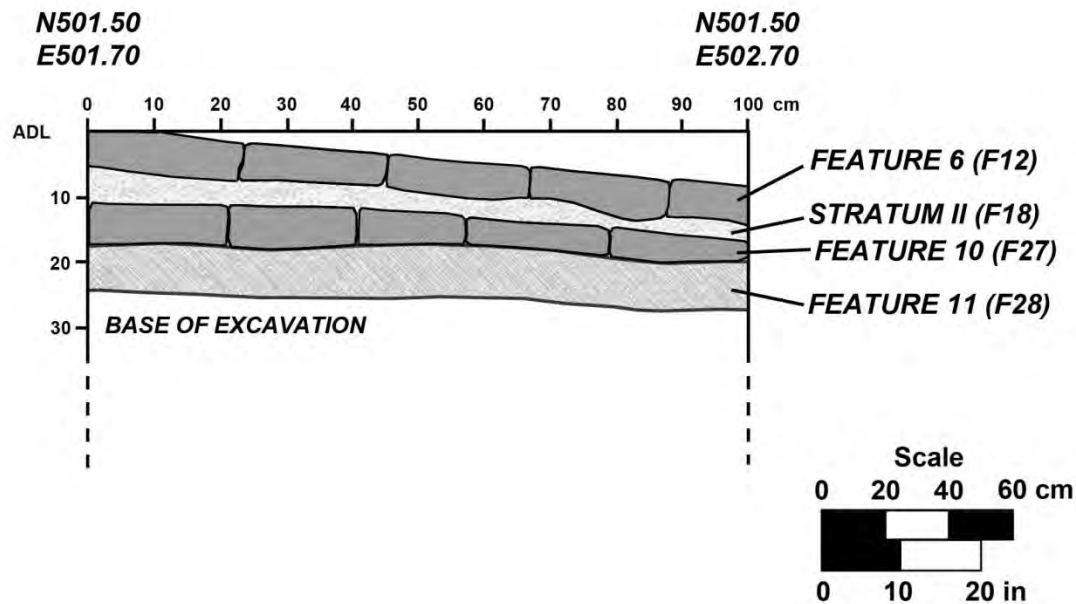


Figure 100: East Profile of Test Unit 501.50 E501.70 showing the relationships of identified Features and Strata.

Feature 11 (Field Designation F28)

Feature 11 represents a prepared floor for a brick courtyard surface (Feature 10). It consisted of a yellowish brown (10YR 5/6) clay. It was identified beneath Feature 10 during the Phase II excavation of TU N501.50 W501.71. Dipping slightly to the south, the feature originated between 69 to 81 cm (27.2 to 31.9 in) bgs and extended to the base of test unit excavation approximately 10 cm (3.9 in) below the top of the feature (Figure 101).

Thirty-two artifacts were recovered during the excavation of Feature 11. The assemblage is comprised of 14 ceramic sherds, 6 glass fragments, and 12 heavily oxidized nail fragments. The ceramic assemblage is further identified as 7 whiteware sherds, 3 stoneware sherds, 2 yellow ware sherds, 1 porcelain tableware sherd, and 1 clay marble. Four of the whiteware sherds are decorated, two with a transfer printed design, and one with a hand painted design. The stoneware sherds consist of two crock fragments and a drainage pipe fragment. The yellow ware sherds are identified as unidentified tableware, one sherd is decorated with a hand painted band design. Clay marbles were common toys produced between 1884 and 1920 (Randall 1971:103-104).



Figure 101: Photograph showing the locations of Features 10 and 11 in relation to Stratum I.

ARTIFACTS AND ECOFACTS

Historic Artifacts

The artifacts and ecofacts recovered during Phase I/II investigations at the 88-90 Crawford Street site are comprised of 617 historic artifacts. The artifact assemblage consists of 379 glass artifacts, 93 ceramic sherds, 121 metal fragments, and 24 miscellaneous artifacts. The artifacts were primarily recovered from contexts involving the destruction of the structures at 82-90 Crawford Street ca. 1944. However, three Features (6, 10, and 11) and Stratum II were identified underlying this destruction rubble and may contain in situ artifacts.

Glass

The largest group of artifacts in the assemblage is the glass, comprised of whole and partial containers, window pane fragments, light bulb fragments, unidentified glass tubes, and tableware artifacts. The identifiable container glass, including 49 whole containers, consists of items such as beverage bottles, pharmaceutical bottles, cold cream jars, and perfume bottles. Several of these containers are embossed with product labels or labels identifying the bottling company. When possible, information was gathered on the product or bottling company. However, the most important attributes in identifying the containers in this assemblage were the maker's marks and marks on the containers that identify the method of manufacture.

Beverage bottles, 10 of which are whole, accounted for 37 of the identified container glass. These bottles and fragments are further identified as 11 liquor, 10 milk, 5 wine or champagne, 3 soda, and 2 beer. The liquor bottle fragments were identified based on their shape, the common half-pint flask. All but one of the liquor bottles are embossed with the statement "Federal law forbids sale or reuse of this bottle". This

statement was required on all liquor bottles with the end of Prohibition. It first appeared in 1935 and was used until the law was repealed in 1964 (Lindsey 2012). Milk bottles were also identified by their distinctive shape. Of the 10 milk bottles in the assemblage, five exhibit embossed product labels. Represented dairies include Rieck's, Meadow Gold, and Zeugers. All of these dairies were active during the 1920s-1950s. Information on specific dairies can be found in the discussion of the 29 Fulton Street site. Four fragments of bottles described as wine or champagne bottles were recovered. None of these exhibit any product labels or other diagnostic attributes. Three soda bottles were recovered. Two of these exhibit the embossed label of the Park Drive Beverage Company. The Park Drive Beverage Company was incorporated in Pittsburgh in June 1940 (Bizapedia 2013). The company was located at 337 Garnet Way in the Bloomfield section of Pittsburgh and existed into the 1960s. The site is currently a vacant lot. The two beer bottles recovered at the site do not exhibit product labels but they do exhibit a maker's mark denoting that they were manufactured by the Brockway Machine Bottle Co. of Brockway, PA post ca. 1925 (Toulouse 1971:59). Seven of the beverage container fragments are classified as unidentified as to type of beverage. One whole bottle is embossed "CONTENTS ONE FULL QUART" around the base and includes the maker's mark for the Owens Illinois Glass Company indicating it was manufactured in Huntingdon, West Virginia in 1941 (Lockhart 2004). The remaining container fragments are unremarkable.

Seven whole bottles and one bottle fragment are identified as pharmaceutical. Products represented in the assemblage include Bayer Aspirin, Scott's Emulsion Cod Liver Oil, Sloan's Liniment, Father John's Medicine, and Vick's Vapo-Rub (Figure 102). As with the other containers recovered at this site, the pharmaceutical bottles date to the first half of the twentieth century, based on the product use or a maker's mark. The Bayer Aspirin and cod liver oil bottles exhibit maker's marks of the Owens Illinois Glass Company that show the exact year of manufacture, 1940 and 1942, respectively. Two of the unidentified pharmaceutical bottles also exhibit maker's marks that denote dates of manufacture. One bottle exhibits the mark of the Knox Glass Bottle Co., Knox, PA used 1924-1968 and also an Owens scar, suggesting this bottle was manufactured between 1924 and the early 1950s (Toulouse 1971: 293; Jones and Sullivan 1985:38-39). The second bottle also exhibits an Owens scar, but also exhibits the mark of the Hazel Atlas Glass Company used ca. 1920-1964, suggesting this bottle was manufactured between 1920 and the early 1950s (Toulouse 1971:242; Jones and Sullivan 1985:38-39).

The recovered toiletry containers include cold cream jars, hair pomade containers, and perfume bottles. Products represented in the assemblage include Ponds and Woodbury cold cream, Dixie Peach hair pomade, and Vaseline. Most of these products were produced for long periods of time; however, the Dixie Peach pomade was first manufactured in 1942 and was popular into the 1960s. The date ranges of manufacture for the remaining containers were determined based on maker's marks. Two containers, both embossed with the Woodbury product label, exhibit the Anchor Hocking maker's mark used after 1938 (Toulouse 1971:48). One possible cold cream jar is unmarked except for the maker's mark of the Knox Glass Bottle Company of Jackson, Mississippi, used between ca. 1932 – 1953 (Toulouse 1971:271). The two perfume bottles are small, one is in the shape of two bells, possibly Christmas related (Figure 103). As with the other containers recovered at this site, the toiletry containers date to the first half of the twentieth century.

Seven other types of containers were recovered including three whole Pennzoil bottles. These exhibit portions of a painted label and an embossed horizontal line on the shoulder with "ONE QUART TO LINE" embossed above the line (Figure 104). The "Pennzoil" spelling was adopted post ca. 1913 (Pennzoil.com 2013).

Non-container glass fragments recovered at the 88-90 Crawford Street site consist of items such as 18 window pane fragments, 12 unidentified glass tubing fragments, 8 light bulb fragments, 1 cold cream jar lid, 1 canning jar lid fragment, 1 lamp cover, 1 radio tube, 1 glass marble and 4 unidentified fragments.

None of these exhibit any diagnostic attributes beyond broad dates of manufacture. One fragment of Depression glass was recovered, however. This fragment is decorated with the Florentine pattern, "Poppy No. 2". This pattern was manufactured by the Hazel Atlas Glass Co. 1932-1935 (Florence 1994:88).

Ceramic Artifacts

Ninety-three (93) ceramic artifacts were recovered during Phase I/II investigations at the 88-90 Crawford Street site. The assemblage is comprised of tableware sherds (Figure 105), crock and jug fragments, buttons, marbles, and electrical parts.

The 60 ceramic sherds identified as tableware include 50 whiteware, 7 porcelain, 2 semi-vitreous, and 1 yellow ware sherd. While 28 of the sherds are decorated, the techniques used are common and were used for long periods of time. The date ranges for the ceramic assemblage range from very broad for whiteware (ca. 1820-1900+; Ramsay 1947:152-153) and semi-vitreous ware (1850+; Ramsay 1947:153) to just a few decades as with the clay marble, ca. 1884-1920, (Randall 1971:103-104). One of the tableware sherds is a cup fragment decorated with a flow black transfer printed design dating to ca. 1828 – 1867 (Stoltzfus and Snyder 1997:15; Samford 1997:23-24). The remaining ceramic artifacts are unremarkable and consist of brick, drain pipe, electrical porcelain, porcelain doll parts, unidentified container sherds, pressed porcelain buttons, and a flower pot.



Figure 102: Assortment of glass pharmaceutical bottles recovered at the 88-90 Crawford Street site.

a.) Sloan's Liniment; b.) Vick's Vapo-Rub; c.) Bayer Aspirin; d.) Father John's Medicine.



Figure 103: Bell-shaped perfume bottle recovered at the 88-90 Crawford Street site.



Figure 104: Pennzoil bottle recovered at the 88-90 Crawford Street site. Note detail of painted label.

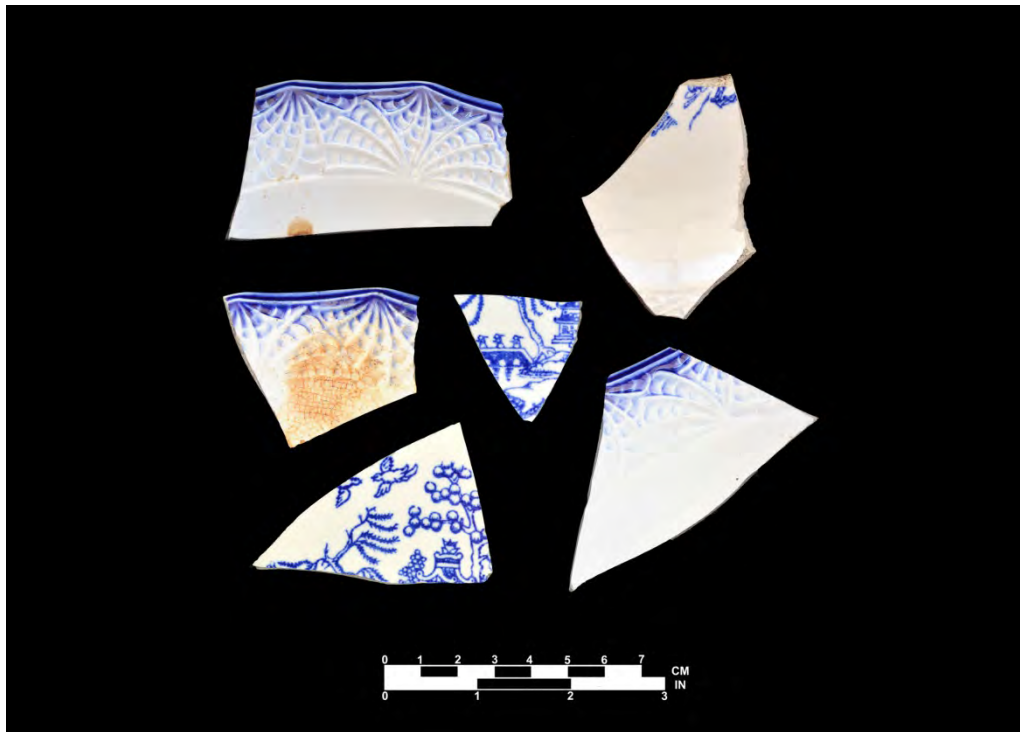


Figure 105: Ceramic artifacts recovered at the 88-90 Crawford Street Site.

Metal Artifacts

The metal assemblage recovered at the 88-90 Crawford Street site is comprised of iron and steel, aluminum, brass, copper, nickel silver, and stainless steel artifacts. The iron or steel artifacts include 103 that are described as “heavily oxidized.” These are further identified as 47 nail fragments (only one of which was identified as to type—wire), 45 can fragments, 4 crown bottle caps, 1 drain flange, 1 railroad spike, 1 pipe fragment, and 1 unidentified wire.

Non-ferrous artifacts include items such as a suspender strap adjuster, a corroded watch, five dining utensils, and a Lone Ranger pin that dates to the 1930s (Collectible Pinbacks 2013) (Figure 106). The utensils consist of four of nickel silver, including two with company names stamped on the back (Figure 107). One of these exhibits a le portion of a backstamp that appears to read: “_A___Y DORIA SILVERPLATE”. The embossed floral and urn “colonial revival” design on spoon handle was a common motif on flatware ca. 1915 - 1930s. The second marked utensil is a teaspoon with a backstamp “FEDERAL”, the mark used by the Federal Silver Company, NYC, ca. 1920 – 1960 (silvercollection.it 2013). The third marked utensil, a fork, is backstamped “PURE SILVERPLATE” but exhibits no company name. One stainless steel table knife was also recovered, dating to post ca. 1920 based on the manufacture dates of stainless steel.



Figure 106: Lone Ranger badge recovered at the 88-90 Crawford Street site.



Figure 107: Silver plated utensils recovered at the 88-90 Crawford Street site.

Fourteen miscellaneous artifacts were recovered at the 88-90 Crawford Street site. The assemblage includes 4 asphalt shingle fragments, 2 dry cell battery rods, 1 electrical fuse stamped with a patent date of 1920, 1 leather shoe fragment, 1 wood and steel utensil fragment, 1 plastic heart-shaped pin, 1 writing slate fragment, 1 slate tile fragment, and 1 record fragment. The electrical fuse is the only miscellaneous artifact with a meaningful date. The other artifacts, such as the asphalt shingles and the battery parts, were first manufactured at the turn of the twentieth century and are still in use today.

Faunal Material

A total of 84 vertebrate faunal elements, with a combined weight of 106.2 g (3.7 oz), were recovered during testing at 36AL636. Due to fragmentation 92% (n = 77) of the assemblage was identifiable only to the level of Class. The recovered material was classed as Mammalia (63%, n = 53), Aves (36%, n = 30), and Osteichthyes (1%, n = 1). The mammalian material was comprised of 46 indeterminate taxa, 4 pig (*Sus scrofa*), and 3 cow (*Bos Taurus*). The avian and piscine material was comprised entirely of indeterminate taxa.

Identifiable elements include: Indeterminate Mammalia (1 phalanx, 1 thoracic vertebra, 34 ribs); *Bos Taurus* (2 rib); Indeterminate Aves (1 femur, 1 tibiotarsus, 28 egg shell fragments); Indeterminate *Osteichthyes* (1 vertebra). The relative size of the indeterminate avian fragments suggest they likely represent specimens of chicken and turkey or similarly sized domesticates such as duck or game hen.

Of the faunal elements examined, only a cow rib, representing 1% (n = 1) of the assemblage, exhibited carnivore gnawing. Cut marks (chiefly as a result of butchering) was evident on 43% (n = 36) of the elements, many of which were rib fragments. None of the elements were calcined as a result of thermal alteration although many presented a brownish coloration suggesting the bone had been boiled/cooked. The faunal assemblage is entirely consistent with historic domestic remains.

SUMMARY AND RECOMMENDATIONS

The 88-90 Crawford Street site was identified based on the presence of subsurface features related to the shared brick courtyard within the yards behind the two row houses at 88 and 90 Crawford Street. Phase II excavations were planned based on these identified locations, and the work exposed the brick courtyard, a privy, and several related features. In total, 617 historic artifacts and 84 faunal elements were recovered during the Phase I/II investigations. The majority of the artifacts (78%, n = 484) originated in the ca. 1944 demolition episode (Feature 1) that capped the site. During the Phase II fieldwork, it became apparent that the privy (Feature 4) had also been in-filled by the demolition episode after it had been cleaned prior to the demolition of the buildings. The site's artifact assemblage, dominated by glass containers, reflects a date range from the late nineteenth century to the first half of the twentieth century. The faunal assemblage is consistent with a domestic site. The small assemblage was primarily recovered from the General Collection, and because of its small size, only broad assumptions can be made about the diet of the inhabitants of the site.

Only four deposits (Feature 6, 10, and 11, and Stratum II) produced in situ artifacts. Each of these contexts was related to the stratified historic surface of the courtyard. Here, the earliest level consisted of a prepared floor (Feature 11) for the lower brick surface (Feature 10). A single clay marble, popular between 1884 and 1920 (Randall 1971:103-104), was recovered among the glass, ceramic, and metal artifacts from this level. A whiteware sherd decorated with a flow black transfer printed design dating to ca. 1828 – 1867 (Stoltzfus and Snyder 1997:15; Samford 1997:23-24) was recovered during the removal of bricks from the overlying Feature 10. Stratum II, a thin horizon separating the lower brick surface from the upper brick surface (Feature 6), contained a whiteware sherd with a maker's mark in use ca. 1886-1892 (Godden 1964:667) and a bottle neck with a finishing tooled lip dating ca. 1820-1920 (Jones and Sullivan 1985:43). Feature 6, the uppermost historic surface, produced a glass container fragment exhibiting a maker's mark in use since 1940 (Toulouse 1971:403). All together, the limited data suggests that the prepared floor and the lower brick surface of the courtyard were constructed during the late nineteenth century while the upper brick surface was emplaced during the first half of twentieth century, but most likely sometime after 1920.

The 88-90 Crawford Street site was continuously occupied from approximately 1850/1855 until ca. 1943 when the buildings were demolished. The vast majority of the artifacts recovered at the site reflect the twentieth century portion of this occupation, and moreover, they originated from a single un-stratified context. This context, identified as Feature 1, represents a continuous layer of destruction debris related to the ca. 1944 demolition of a large section of row houses (82 to 90 Crawford Street). Since multiple properties were demolished simultaneously, the artifacts recovered from Feature 1 may not be representative of the occupants at the 88-90 Crawford Street site. Earlier deposits that retain integrity were identified beneath Feature 1 as stratified courtyard surfaces. However, artifacts from these contexts tended to be small and non-diagnostic, suggesting some cleaning and maintenance of the historic surfaces. Furthermore, of the 133 artifacts recovered from Features 6, 10, and 11, and Stratum II, only six (5%) exhibited chronological attributes more specific than broad dates of manufacture.

Due to the loss of association between the majority of the artifact assemblage and discrete cultural deposits that resulted from the ca. 1944 demolition episode, the 88-90 Crawford Street site is recommended as not eligible for inclusion in the NRHP. In total, 28% of the site was excavated during the combined Phase I/II investigations, and these investigations were entirely focused on identifying cultural deposits in portions of the historic lots that were devoid of foundations. Any additional excavations would only produce redundant data on the buildings that once stood at the site since valuable descriptive information about them was accessed through historic maps, photographs, and the WPA Home survey project. Therefore, no further archaeological work is recommended.

Holy Trinity Church and School Site (36AL637)

The Holy Trinity Church and School site is located in the southeastern corner of Lot 2-C-300 near the intersection of Crawford Street and Centre Avenue. The site is situated within an asphalt parking lot at an elevation of 274 m (899 ft) amsl (Figure 54). Based on the boundaries of the historic lot (Hopkins 1910), the site area measures approximately 1,594.40 m² (17,161.98 ft²). The site was identified during the Phase I portion of the survey based on the recovery of cultural features and historic artifacts in Trench 3 (Figure 108). Trench 3 measured approximately 4.5 m (15.2 ft) in length (N-S) by 1.7 m (5.8 ft) in width (E-W), and was excavated to a maximum depth of 1.36 m (4.6 ft). UTM coordinates for the southwest corner are N4477228.62 E585956.54. This trench was emplaced to identify cultural features related to the ca. late nineteenth century Holy Trinity/German Roman Catholic Church and School.

Additional features and artifacts were uncovered after two additional trenches were excavated at the site during the Phase II investigation. The Phase II trenches were designated Trench A and Trench B. Trench A, the southernmost trench, measured approximately 6.2 m (20.3 ft) in length (E-W) and 5.6 m (18.4 ft) in width (N-S), and was excavated to a maximum depth of 1.1 m (3.6 ft) (Figure 109). UTM coordinates for the southwest corner of Trench A are N4477208.86 E585958.45. Trench B measured approximately 8.5 m (27.9 ft) in length (E-W) and 5.0 m (16.4 ft) in width (N-S), and was excavated to a maximum depth of 2.2 m (7.2 ft) (Figure 110). UTM coordinates for the southwest corner of Trench B are N4477225.47 E585954.26. In total, 84.87 m² (913.53 ft²) was investigated, or 5.3 % of the site. Figure 111 shows the location of the excavation trenches in relation to the historic building footprints based on the 1910 Hopkins map.

The Holy Trinity Church and School site consists of a building foundation and associated structural elements, landscape features such as walls and walkways, and two destruction episodes, including the 1958 demolition that capped the site. In addition, six strata were identified, including two natural soil horizon, two historic horizons, and two horizons related to the modern use of the site area as a parking lot. Stratigraphy and cultural features observed at the Holy Trinity Church and School site are described below and summarized in Table 17.

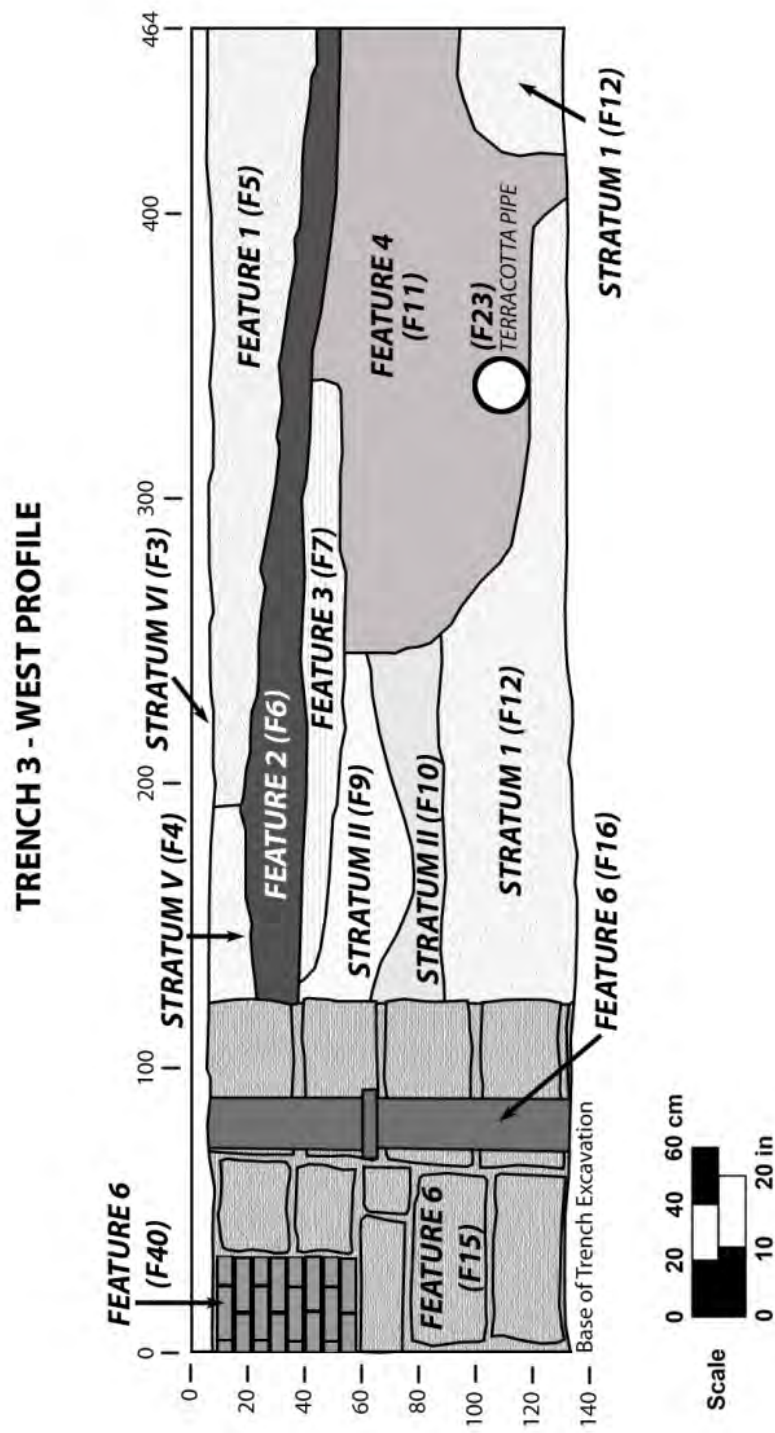


Figure 108: West wall profile of Trench 3 showing identified Features and Strata.

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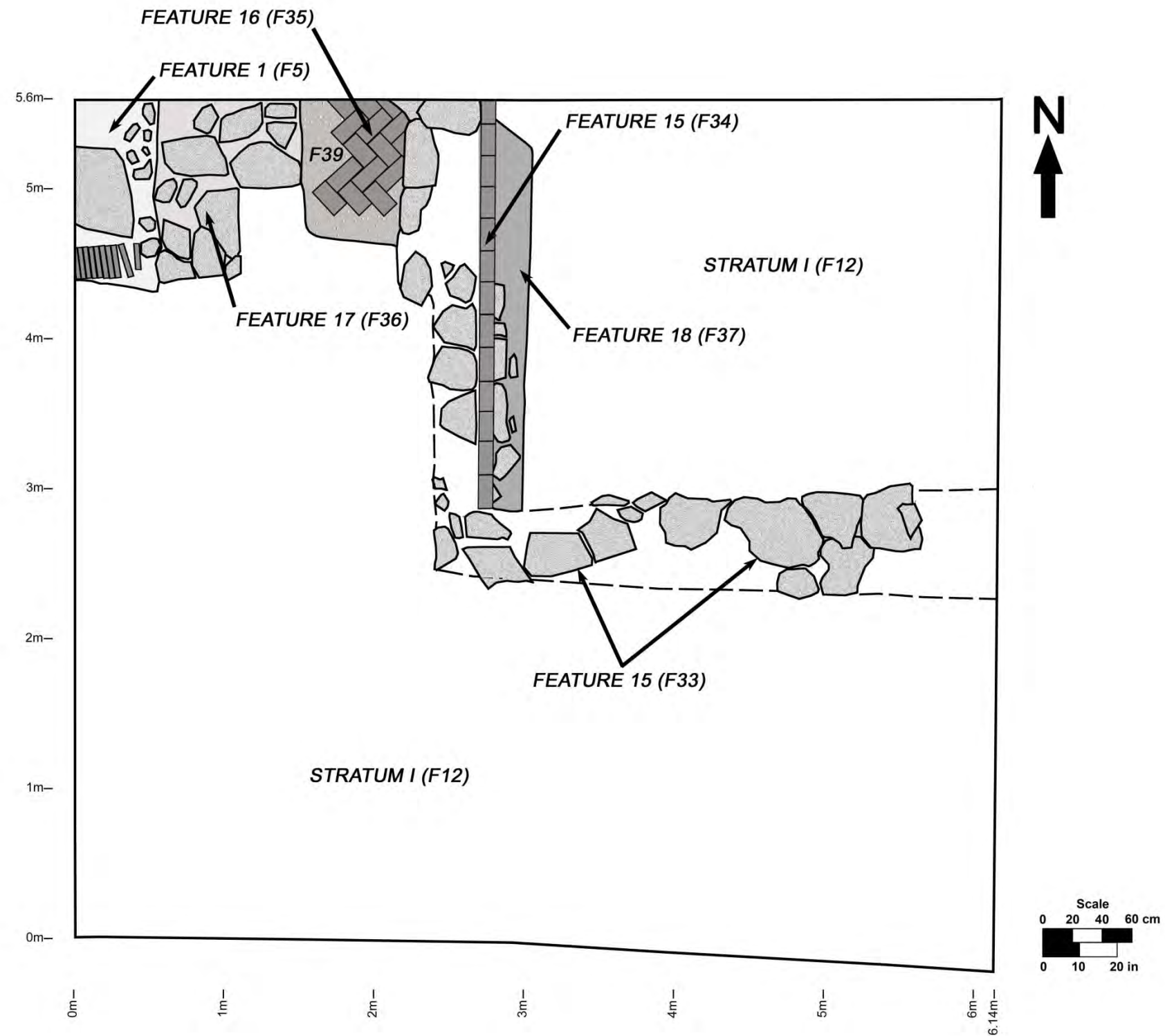


Figure 109: Plan view of Trench A showing identified Features and Strata.

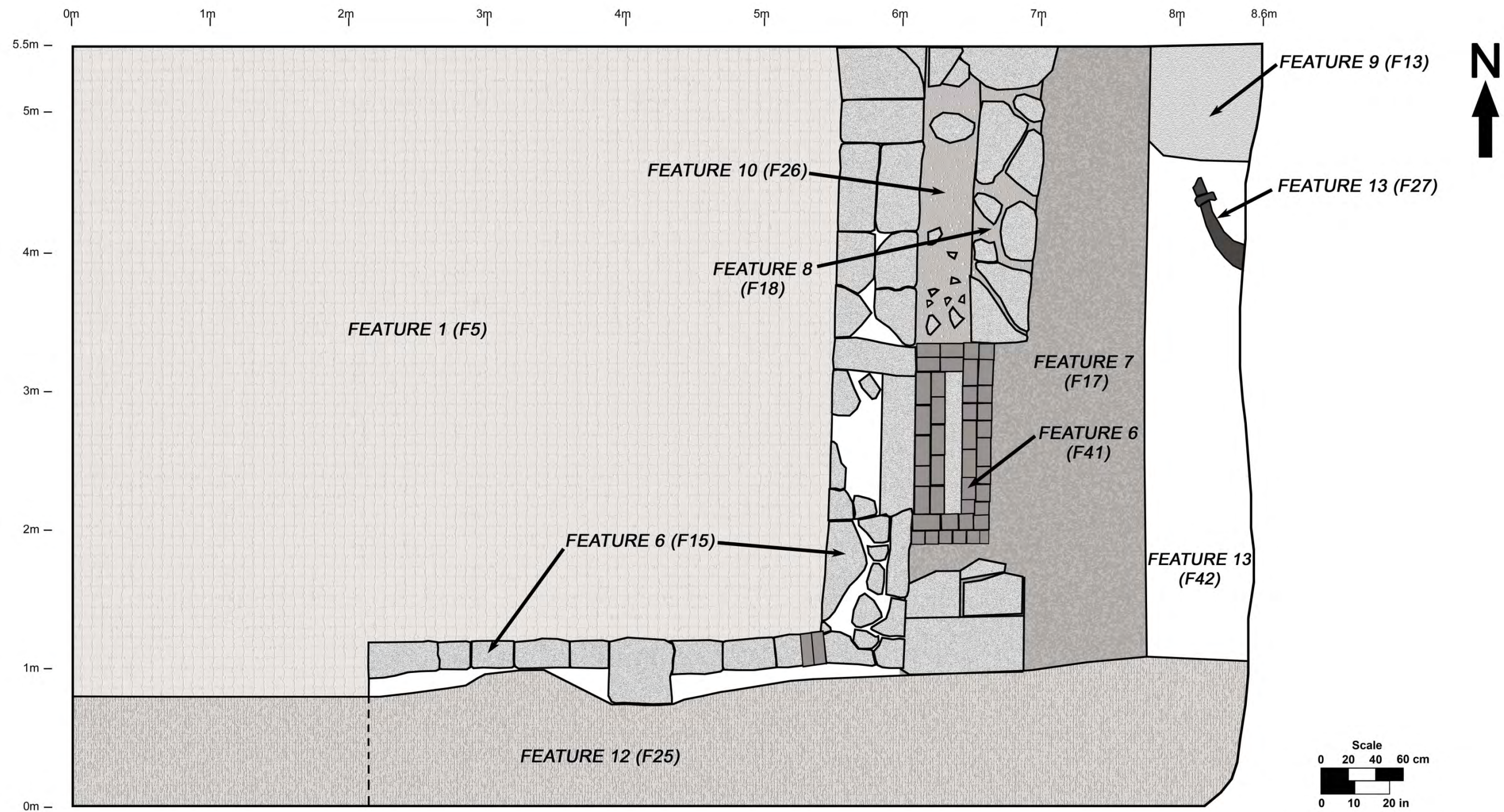


Figure 110: Plan view of Trench B showing identified Features and Strata.

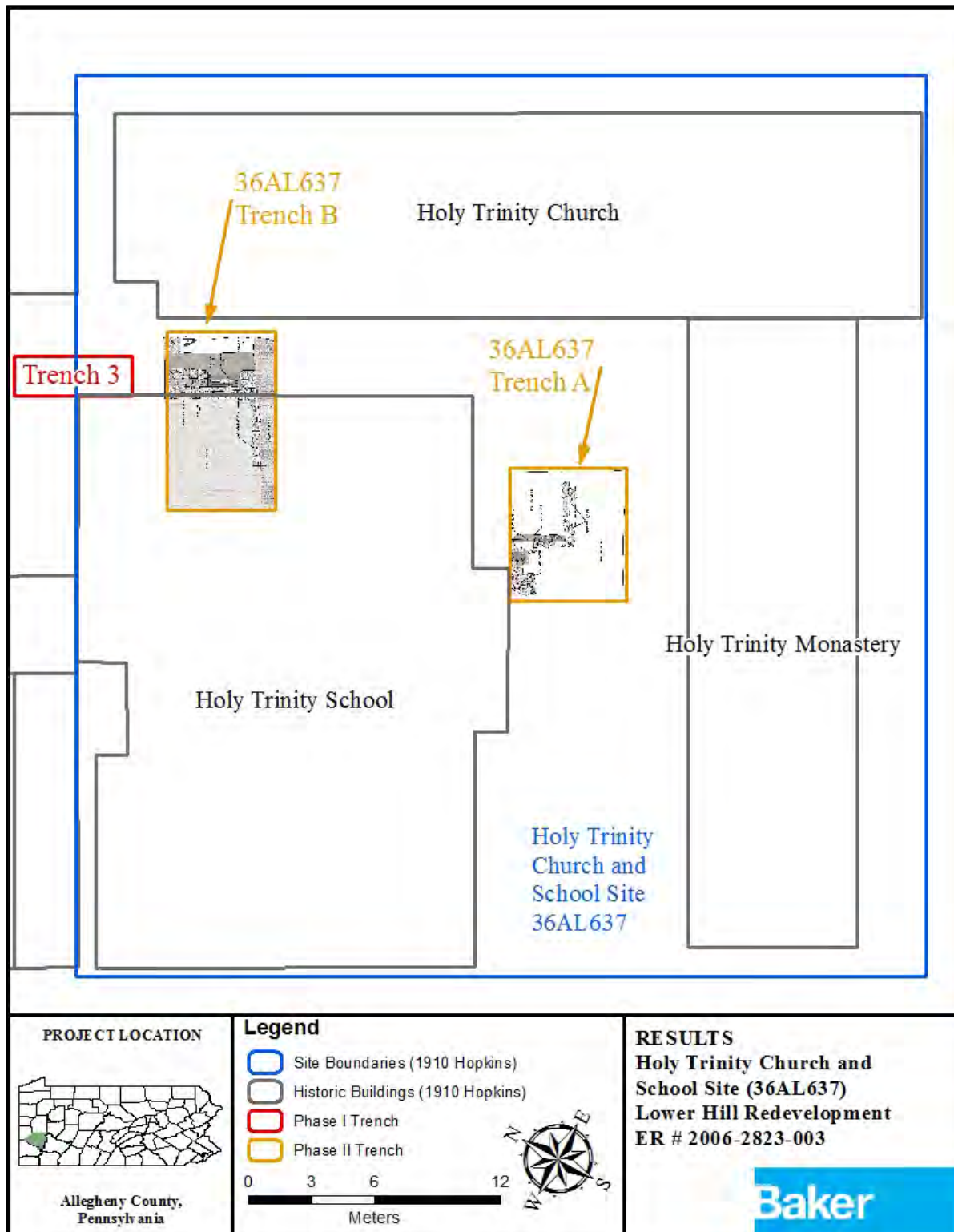


Figure 111: Excavation trench locations in relation to historic building footprints at the Holy Trinity Church and School site.

STRATIGRAPHY

Six strata were identified during the archaeological investigations of the Holy Trinity Church and School site (Table 17). They are labeled in ascending order from oldest (lowest) to youngest (uppermost) and are described below.

Stratum I (Field Designation F12)

Stratum I represents a B horizon consisting of a light yellowish brown (10YR 6/4) silty clay loam with siltstone and manganese inclusions. It was originally identified in Trench 3 during the Phase I investigation and re-identified during the Phase II excavations of Trench A and Trench B (Figure 112). It originated at a depth of 52 to 94cm (20.5-37.0 in) bgs and continued to the base of excavations, which reached a maximum depth of approximately 222 cm (87.4 in) bgs in Trench B. The stratum spanned each trench underlying all strata and cultural features, although several features intruded into the horizon. They include masonry walls (Features 6, 8, 15, and 17), historic utility trenches (Features 4 and 13), and a historic builder's trench (Feature 7). No artifacts were recovered from Stratum I.

Table 17: Description of Stratigraphy and Features Observed at the Holy Trinity Church and School Site (36AL637).

Stratum/ Feature #	F #	Location	Munsell	Description	Stratigraphic Sequence
Stratum VI	F3	Trench 3, Trench A, Trench B	-	Asphalt parking lot	Uppermost level 0 to 10 cm (0 to 3.9 in) bgs
Stratum V	F4	Trench 3, Trench A, Trench B	Brown (10YR 4/3) to a very dark grayish brown (10YR 3/2) gravely silty sand	Gravel parking lot	Underlies Stratum VI 10 to 12/20 cm (3.9 to 4.7/7.9 in) bgs
Stratum IV	F28/F29	Trench A	Black (10YR 2/1) cindery silt loam	Historic soil horizon	Underlies Feature 1 37/44 to 46/52 cm (14.6/17.3 to 18.1/20.5 in) bgs
Stratum III	F31	Trench A	Black (10YR 2/1) cindery silt loam	Historic soil horizon	Underlies Feature 14 56/64 to 70/80 cm (22/25.2 to 27.6/31.5 in) bgs
Stratum II	F9/F10	Trench 3	Very dark gray (10YR 3/1) and dark yellowish brown (10YR 4/4) silty clay	Possible relic Ap Horizon	Underlies Feature 3 38 to 90 cm (15.0 to 35.4 in) bgs
Stratum I	F12	Trench 3, Trench A, Trench B	Light yellowish brown (10YR 6/4) silty clay loam	B horizon	Underlies all strata and cultural features
Feature 1	F5	Trench 3, Trench A, Trench B	-	Compressed layer of brick and stone from 1958 demolition of nearby buildings including Holy Trinity Church and School	Underlies Stratum V 12/18 to 222 cm (4.7/7.1 to 87.4 in) bgs
Feature 2	F6	Trench 3	Very dark gray (10YR 3/1) (10YR 3/2) silt clay	Historic Fill	Underlies Feature 1 22 to 52 cm (3.1 to 20.5 in) bgs
Feature 3	F7	Trench 3	Mottled yellowish brown (10YR 5/4) and very dark gray (10YR 2/2) cindery silt loam (F7)	Prepared floor for brick walkway	Underlies Feature 2 38 to 54 (15.0 to 21.3 in) bgs
	F8	Trench 3		Un-mortared brick walkway	

Stratum/ Feature #	F #	Location	Munsell	Description	Stratigraphic Sequence
Feature 4	F11	Trench 3	Mottled pale brown (10YR 6/3) and brown (10YR 4/3) silty clay	Historic utility trench	Underlies Features 2 and 3 42 to 140 cm (16.5 to 55.1 in) bgs
	F23	Trench 3		Terracotta pipe at the base of F11	
Feature 5	F14	Trench A	Black (10YR 2/1) mottled with brown 10YR 4/4) and yellowish brown (10YR 5/6) silty clay	Possible historic postmold	Underlies Feature 1 56 to 106 cm (22.0 to 41.7 in) bgs
Feature 6	F15	Trench 3, Trench B		Coursed stone masonry foundation wall and interior load-bearing wall for the ca. 1884 Holy Trinity School	Underlies Feature 1 8/18 to 222 cm (3.1/7.1 to 87.4 in) bgs
	F40	Trench 3		In-laid brick element of foundation wall	Underlies Feature 1, rests in F15
	F16	Trench 3		Terracotta pipe downspout	Underlies Feature 1, adjacent to F15
	F41	Trench B		Window sill made from stone, brick, and mortar.	Underlies Feature 1, rests on F15
Feature 7	F17	Trench 3, Trench B	Mottled very dark grayish brown (10YR 3/2) and yellowish brown (10YR 5/6) clay loam	Historic builder's trench for 1884 Holy Trinity School (Feature 6) and possibly earlier buildings (Feature 8)	Underlies Feature 1 26 to 140 cm (10.2 to 55.1 in) bgs at base of excavation in Trench 3
Feature 8	F18	Trench 3, Trench B		Masonry wall possibly related to buildings predating the 1884 holy Trinity School	Underlies Feature 1 10 to 102 cm (3.9 to 40.2 in) in Trench 3
Feature 9	F13	Trench 3, Trench B	Mottled very dark grayish brown (10YR 3/2), yellowish brown (10YR 5/6), and yellow (10YR 7/6) silty clay	Historic fill	Underlies Feature 1 26 to 70 cm (10.2 to 27.6 in) bgs in Trench 3
Feature 10	F19	Trench 3	Very dark grayish brown (10YR 3/2) sand	Historic in-filling	Underlies Stratum V 12 to 22 cm (4.7 to 8.7 in) bgs
	F20	Trench 3	Black (10YR 2/1) sand	Historic in-filling	Underlies F19 22 to 26 cm (8.7 to 10.2 in) bgs
	F21	Trench 3	Mottled brownish yellow (10YR 6/8) and dark grayish brown (10YR 4/2) clay loam	Historic in-filling	Underlies F20 26 to 58 (10.2 to 22.8 in) bgs
	F22	Trench 3	Black (10YR 2/1) silt loam	Historic in-filling	Underlies F21 58 to 116 (22.8 to 45.7 in) (bgs)
	F26	Trench B	Dark grayish brown (10YR 4/2) silty clay containing stone rubble	Historic in-filling	Underlies Feature 1
Feature 11	F24	Trench B	Black (10YR 2/1) silt loam	Historic in-filling in window sill (F41) of Feature 6	Underlies Feature 1 25 to 35 cm (9.8 to 13.8 in) bgs
Feature 12	F25	Trench B		Modern utility trench	Underlies Stratum IV
Feature 13	F27	Trench B	Mottled pale brown (10YR 6/3) and brown (10YR 4/3) silty clay	Historic utility trench	Underlies Feature 1
	F42	Trench B		Joint cast iron and terracotta drainage pipe in F27	

Stratum/ Feature #	F #	Location	Munsell	Description	Stratigraphic Sequence
Feature 14	F30	Trench A	Brownish yellow (10YR 6/8) clay with fragments of brick and stone	Demolition episode, possible related to the destruction of buildings predating the 1884 Holy Trinity School	Underlies Stratum IV 42 to 76 cm (16.5 to 29.9 in) bgs
Feature 15	F33	Trench A		Dry stack stone wall	Underlies Stratum IV 26 to 58 cm (10.2 to 22.8 in) bgs
	F34	Trench A		Un-mortared brick wall lining F33	
Feature 16	F35	Trench A		Herringbone-patterned brick walkway/pavement	Underlies Feature 19 35 to 43 cm (13.8 to 16.9 in) bgs
	F39	Trench A	Mottled dark yellowish brown (10YR 4/6) and very dark grayish brown (10YR 3/2) sandy clay	Prepared floor for F35	Underlies F35 43 to 51 cm (16.9 to 20.1 in) bgs
Feature 17	F32/F36	Trench A		Masonry wall supporting front steps to the 1884 Holy Trinity School	Underlies Feature 1 16 to 106 cm (6.3 to 41.7 in) bgs
Feature 18	F37	Trench A	Brown (10YR 4/3) silty clay	Remnant historic surface	Underlies Stratum III
Feature 19	F38	Trench A	Yellow (10YR 7/6) compact clay that contained coal and slate fragments	Historic fill	Underlies stratum IV 20 to 34 cm (7.9 to 13.4 in) bgs

Stratum II (Field Designations F9 and F10)

Stratum II represents a possible buried Ap horizon. It was observed during the Phase I survey in the central portion of Trench 3 (Figure 112). The stratum consisted of an undulating layer of dark yellowish brown (10YR 4/4) to very dark gray (10YR 3/1) silty clay. It originated at depth of 38 cm (15.0 in) below a brick walkway (Feature 3), and extended to a maximum depth of 90 cm (35.4 in). Feature 4, Feature 5, and Feature 6 truncated the stratum. Stratum II was not observed in Trench A or Trench B during the Phase II investigations.

Stratum III (Field Designation F31)

Stratum III consists of a 6 to 14 cm (2.4-5.5 in) thick layer of black (10YR 2/1) cindery silt loam that extended to an approximate depth of 70 to 80 cm (27.6-31.5 in) bgs. The stratum was identified in the north profile of Trench A immediately below Feature 1 and above Feature 14. It was truncated by Feature 17. Stratum III was not observed in Trench 3 or Trench B.

Stratum IV (Field Designations F28 and F29)

Stratum IV consists of a 2 to 15 cm (0.8-5.9 in) thick layer of black (10YR 2/1) cindery silt loam that extended to an approximate depth of 46 to 52 cm (18.1-20.5 in) bgs. The stratum was identified in the eastern half of the north profile of Trench A immediately below Feature 14 and above Stratum I. It was truncated by Feature 15. Stratum IV was not observed in Trench 3 or Trench B.

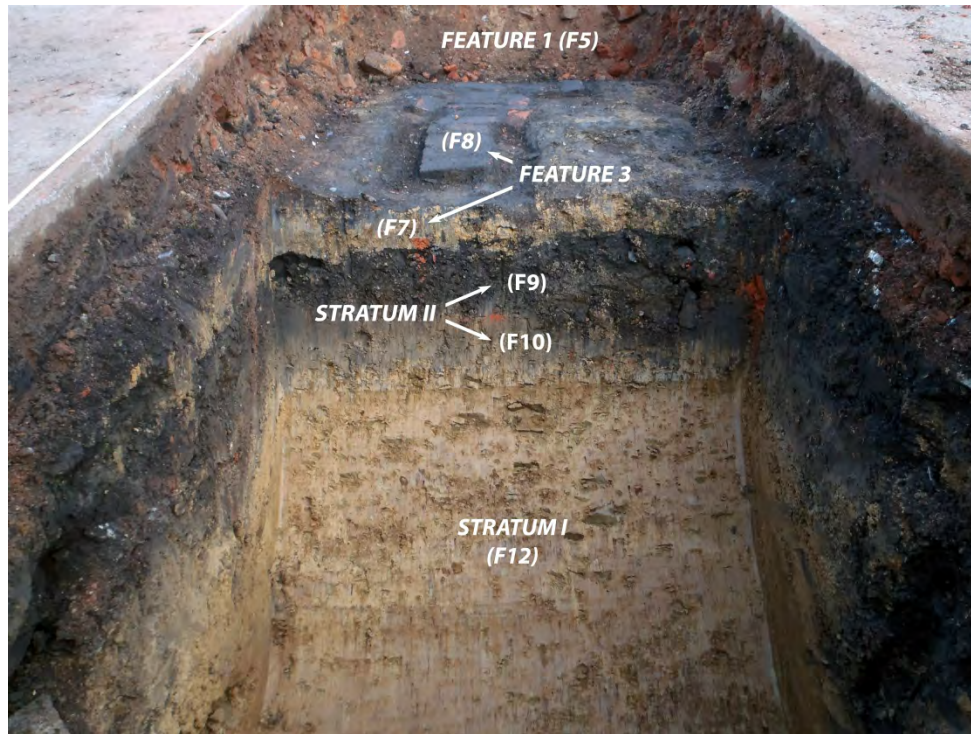


Figure 112: Trench 3 showing the locations of Strata I and II and Features 1 and 3, facing north.

Stratum V (Field Designation F4)

Stratum V consists of a 2 to 10 cm (0.8-3.9 in) thick layer of brown (10YR 4/3) gravelly silt loam that extended to an approximate depth of 12 to 20 cm (4.7-7.9 in) bgs. The stratum occurred continuously across the site area investigated by Trench 3, Trench A, and Trench B, except for the southern edge of Trench B where it was truncated by a modern electrical utility trench (Feature 12). Stratum II represents a former gravel parking lot surface for the Arena. According to Raymond Wolowicz (personal communication, March 2013), General Manager of Parking for the Consol Energy Center, a gravel parking lot was in operation until the 1980s when it was replaced by an asphalt surface. All cultural features related to the Holy Trinity Church and School site were identified below Stratum V.

Stratum VI (Field Designation F3)

Stratum VI is the uppermost stratum at the Holy Trinity Church and School site. It consists of an approximately 10 cm (3.9 in) thick layer of asphalt used as the existing parking lot surface. The stratum extends across the entire site area.

FEATURES

Nineteen cultural features were identified during the archaeological investigations of the Holy Trinity Church and School site. The majority of features appear to be associated with the construction, use, and destruction of the ca. 1884 Holy Trinity School. The features are described below.

Feature 1 (Field Designation F5)

Feature 1 represents a mainly continuous layer of destruction debris related to the 1958 demolition of this portion of the Lower Hill District for the construction of the Arena (Pittsburgh Sun Telegraph Staff 1958). The feature consisted of an unconsolidated matrix of bricks, stone, and other building debris (Figure 113).

It was identified in all trenches immediately below Stratum V. The feature originated between 8 to 18 cm (3.1-7.1 in) bgs and extended to a maximum depth of 222 cm (87.4 in) bgs within Feature 6 (Field Designation F15). The base of Feature 1 in the exterior of Feature 6 ranged from 14 to 50 cm (5.5-19.7 in) bgs. Feature 12 and Feature 17 (Field Designation F36) truncated Feature 1. Portions of the feature were removed mechanically to facilitate documentation of the underlying cultural features (Figure 115 and 116).

Ten artifacts were recovered in Feature 1. The assemblage is comprised of ceramic, glass, and metal artifacts including the base and body portion of a shaving cup with the maker's mark of Mayer China, which was established in 1881, a cut nail (post ca. 1790s; Edwards and Wells 1993:15-16), and an unidentified glass container with the Glenshaw Glass Company mark that was adopted in 1932 (Toulouse 1971:211). The stoneware jug fragment is likely from a stoneware gin bottle.

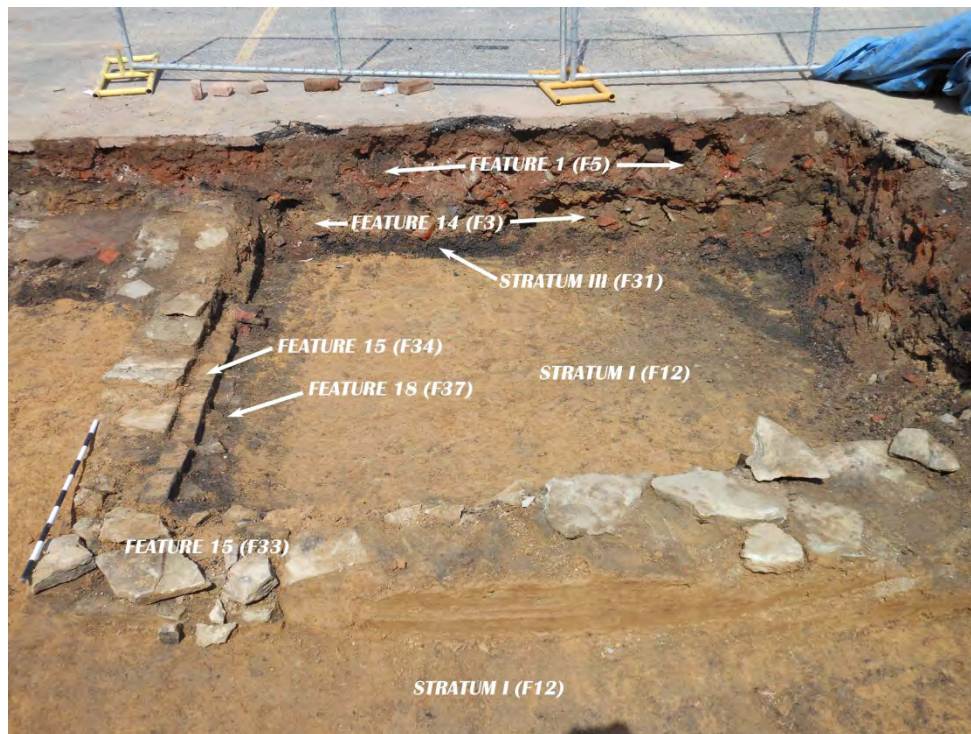


Figure 113: Photograph showing Feature 1 in relation to Features and Strata identified at the Holy Trinity Church and School site, facing west.

Feature 2 (Field Designation F6)

Feature 2 represents a historic fill layer consisting of a very dark gray (10YR 3/1) silty clay. The 30-cm (11.8-in) thick feature was identified in Trench 3 below Feature 1, extending from 22 to 52 cm (3.1-20.5 in) bgs (Figure 114). The feature dipped to the north. It was not observed in either Trench A or Trench B during the Phase II investigation. No artifacts were recovered in Feature 2.

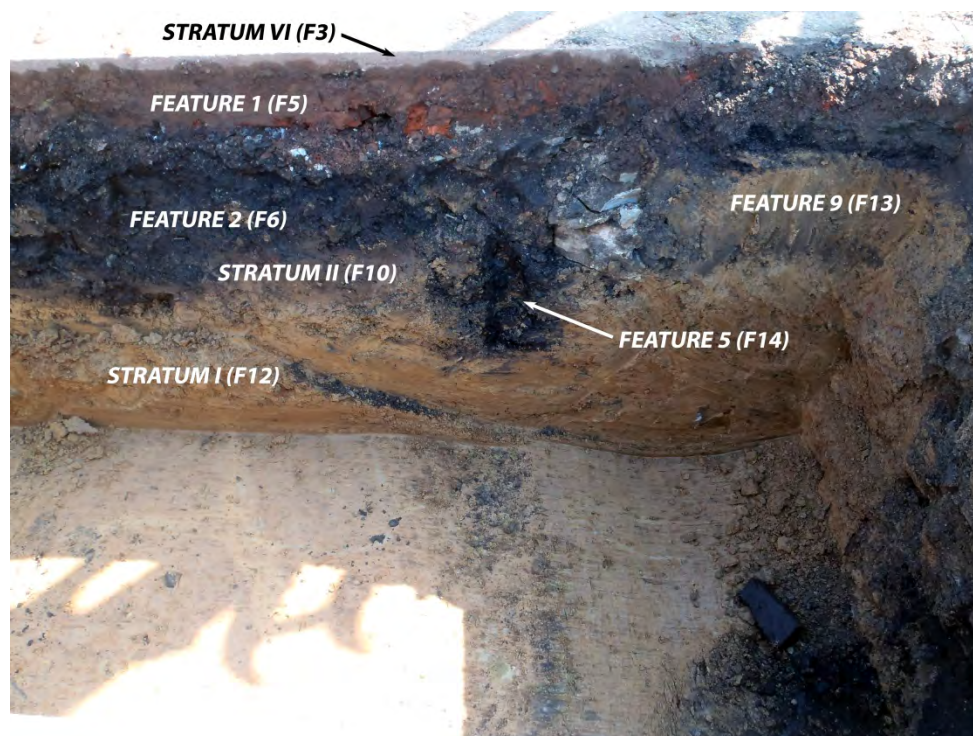


Figure 114: Photograph showing east profile of Trench 3. Note locations of Features 1, 2, 5, and 9.

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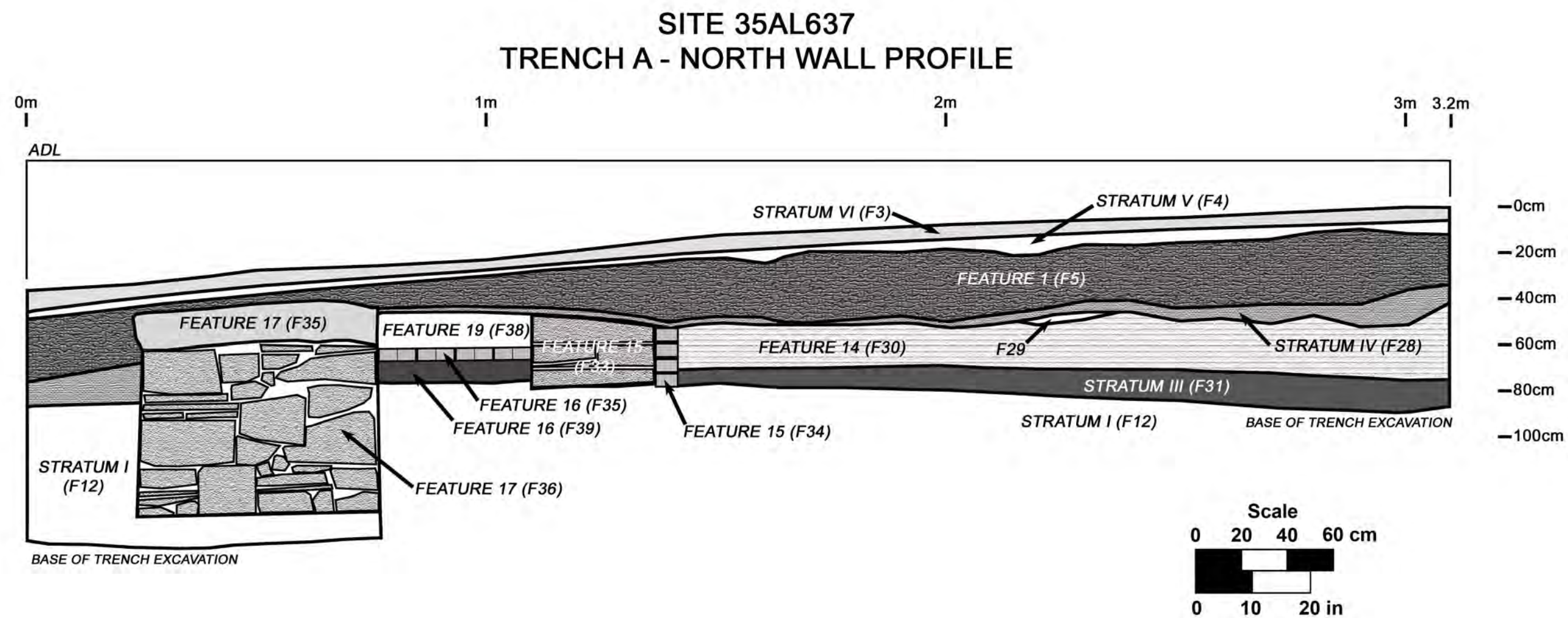


Figure 115: North wall profile of Trench A, showing identified Features and Strata.

SITE 36AL637
TRENCH B - NORTH WALL PROFILE

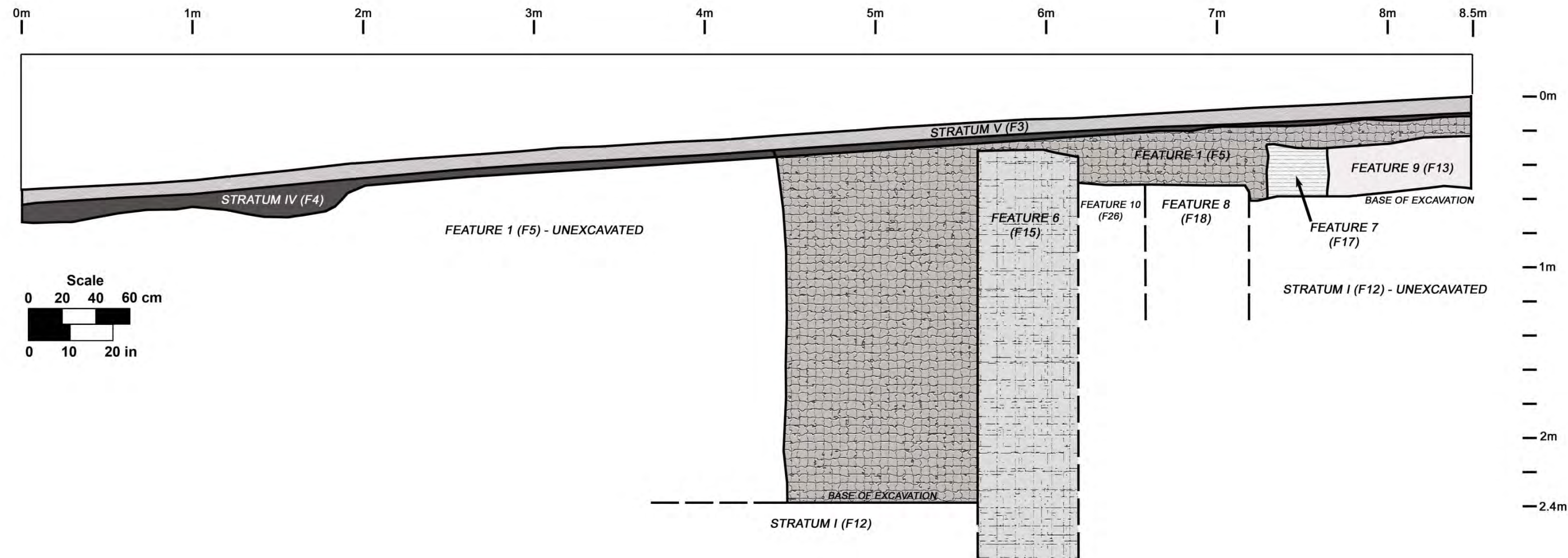


Figure 116: North wall profile of Trench B, showing identified Features and Strata.

Feature 3 (Field Designations F7 and F8)

Feature 3 represents a portion of a brick walkway. It was identified in the northern half of Trench 3 between 38 and 54 cm (15.0-21.3 in) bgs (Figure 117). The feature consisted of un-mortared bricks (F8) placed within a prepared floor (F7) of mottled yellowish brown (10YR 5/4) and very dark gray (10YR 2/2) cindery silt loam. The extant portion of the brick element measured approximately 96 cm (37.8 in) in length (N-S) and 40 cm (15.7 in) in width (E-W). It is not conclusive if the prepared floor and brick walkway were associated with the Holy Trinity property or the row houses north of the historic lot boundary. The feature was not observed in either Trench A or Trench B during the Phase II investigation. No artifacts were recovered in Feature 3.

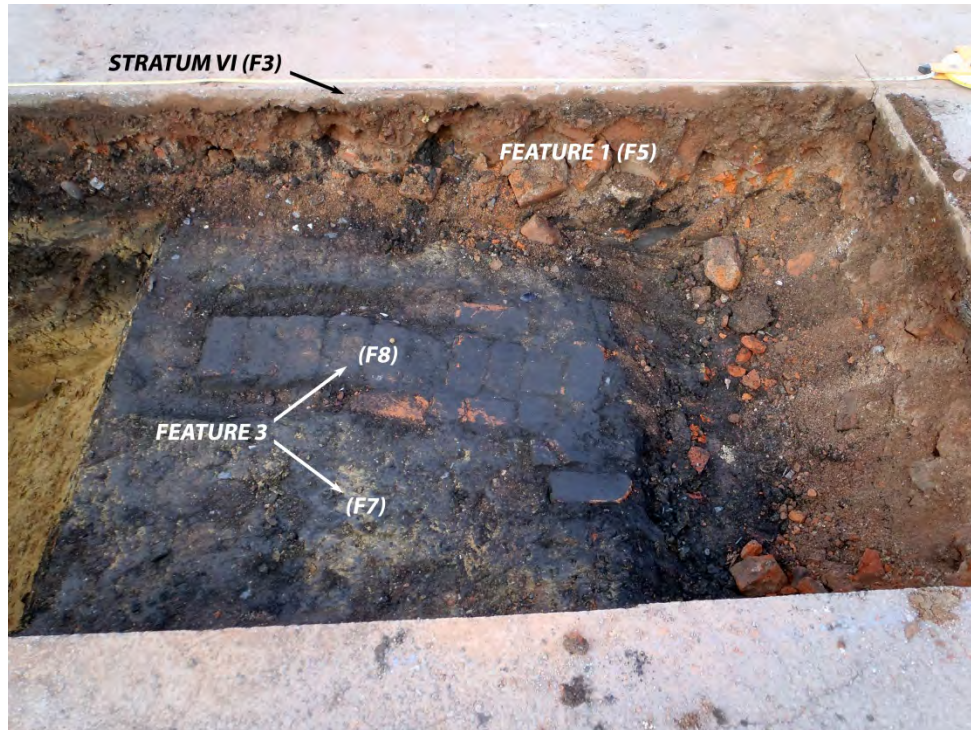


Figure 117: Photograph showing the northern portion of Trench 3, facing west. Note the location of Feature 3.

Feature 4 (Field Designations F11 and F23)

Feature 4 represents a historic utility trench. It was identified in the northern half of Trench 3 between 42 and 140 cm (16.5-55.1 in) bgs. The matrix of the trench (F11) consisted of mottled pale brown (10YR 6/3) and brown (10YR 4/3) silty clay. The base of the feature contained a terracotta pipe (F23). The bearing of the pipe suggests that it was placed in a northeast to southwest direction towards the school's foundation. The utility trench and pipe were probably constructed prior to or at the same time as the school (ca. 1884) due their stratigraphic relationship within Trench 3. The feature was not observed in either Trench A or Trench B during the Phase II investigation. No artifacts were recovered in Feature 4.

Feature 5 (Field Designation F14)

Feature 5 represents a possible historic postmold. It was identified in the eastern wall of Trench 3 between 56 and 106 cm (22.0-41.7 in) bgs (Figure 120). The matrix of the feature consisted of a mottled black (10YR2/1), brown (10YR 4/4), and yellowish brown (10YR 5/6) silty clay. The purpose of the feature is uncertain. No artifacts were recovered in Feature 5.

Feature 6 (Field Designations F15, F16, F40, and F41)

Feature 6 represents the foundation walls and associated architectural elements of the ca. 1884 Holy Trinity School (Figures 118 and 119). Initially, Feature 6 was identified in Trench 3 during the Phase I survey. Excavation of Trench B approximately 225 cm (88.6 in) south of Trench 3 uncovered more of the feature. Feature 6 occurred below Feature 1 at depths between 8-18 cm (3.1-7.1 in) and 222 cm (87.4 in) bgs at the base of Trench B.

The exposed portions of Feature 6 consist of two masonry walls, a terracotta pipe downspout, and a window sill. The coursed stone masonry walls include segments of the eastern foundation wall and an interior load-bearing basement wall (both included in Field Designation F15) that supported the school building. The northeastern corner of the foundation, along with a portion of the eastern wall, occurred in the western profile of Trench 1. The wall exhibited an inlaid brick element 8 courses high (Field Designation F40). An intact segment of a terracotta pipe downspout (Field Designation F16) occurred near this corner. A historic photograph shows downspouts leading down from the roof's gutters at the southwestern and southeastern corners of the school building (Figure 40; Dressel 1932:53), the only two visible corners in the picture. The building likely had downspouts at each corner.



Figure 118: Photograph of Feature 6 and surrounding features, facing west.



Figure 119: Photograph showing window well in Feature 6, facing east.

As identified in Trench B, the eastern wall extended south from the northeast corner for a length of approximately 7.2 m (23.6 ft). A modern utility trench (Feature 12) disturbed the wall near the southern limits of Trench B. Historic maps indicate that the wall would have extended south for an additional 11.4 m (37.4 ft) (Hopkins 1910). The interior load-bearing wall was placed perpendicular to the eastern foundation wall at approximately 7.0 m (23.0 ft) south of the northeast corner of the building. This wall extended west from for approximately 3.3 m (10.8 ft). It terminated at what was likely a passage way in the basement of the building. In addition, the eastern wall contained a window sill (Field Designation F41) near the juncture of the two walls described above. The sill is comprised of a stone slab ledge and brick and mortar enclosure. The enclosure consists of five courses of horizontally-stacked bricks and one vertical course supported by a brick base. No artifacts were recovered in Feature 6.

Feature 7 (Field Designation F17)

Feature 7 represents an approximately 60 cm (23.6 in) wide builder's trench for the construction of the ca. 1884 Holy Trinity School or earlier buildings. The feature was identified in the south profile of Trench 3, the north profile of Trench B, and parallel (in plan) to Features 6 and 8 in Trench B (Figure 120). It occurred below Feature 1 at a depth of 26 cm (10.2 in) bgs, and extended to 140 cm (55.1 in) bgs at the base of excavations in Trench 3. Presumably, the feature would have extended to a similar depth as Feature 6. The matrix consisted of a mottled very dark grayish brown (10YR 3/2) and yellowish brown (10YR 5/6) clay loam. Feature 7 was truncated by the modern utility trench (Feature 12). No artifacts were recovered in Feature 7.

Feature 8 (Field Designation F18)

Feature 8 represents remnants of masonry wall(s) that paralleled the eastern foundation wall of Feature 6 between 38 and 40 cm (15.0-15.7 in) to the east. The feature was initially identified in the south profile of Trench 3 (Figure 120). As identified in Trench B, the wall extended southward for 4.3 m (14.1 ft) up

to the window sill (F41) element of Feature 6. The portion identified in Trench 3 was constructed from brick while the wall in Trench B was made from uncoursed stone rubble. The exact function of the feature is undetermined, although it may represent one or more foundation walls of buildings present on the lot that predated the ca. 1884 Holy Trinity School (Hopkins 1872, 1882). No artifacts were recovered in Feature 8.

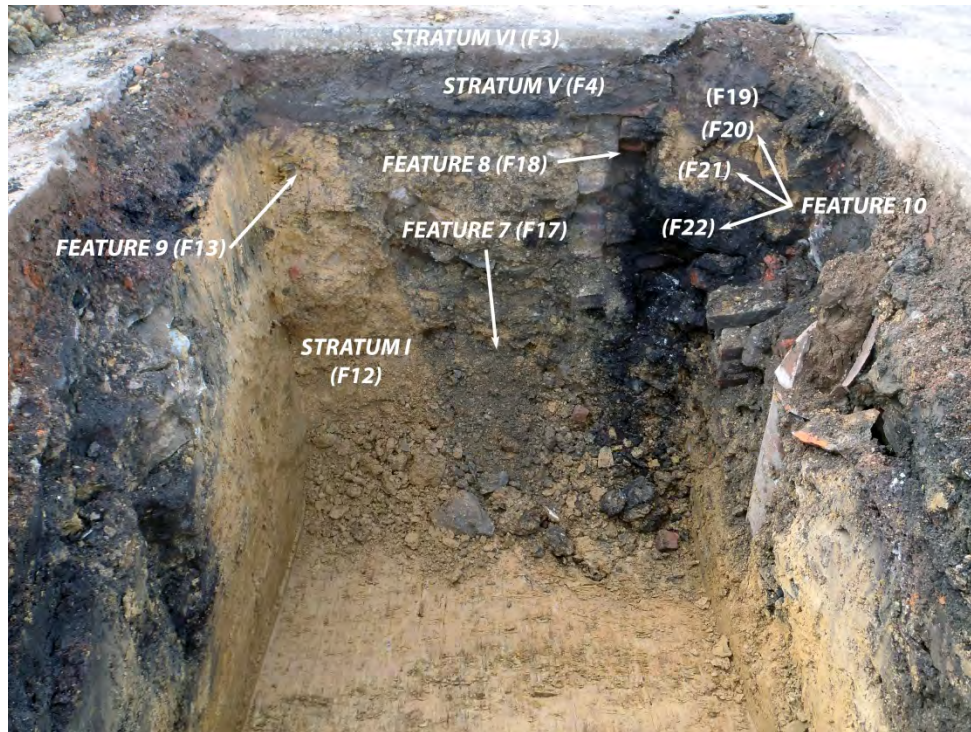


Figure 120: Photograph showing the south profile of Trench 3, facing south. Note the locations of Features 7, 8, 9, and 10.

Feature 9 (Field Designation F13)

Feature 9 represents historic fill of undetermined origin. It was identified in the south profile of Trench 3 and north profile of Trench B (Figure 120). The feature occurred below Feature 1 between 26 and 70 cm (10.2-27.6 in) bgs. The matrix of the feature consisted of a mottled very dark grayish brown (10YR 3/2), yellowish brown (10YR 5/6), and yellow (10YR 7/6) silty clay. No artifacts were recovered in Feature 9.

Feature 10 (Field Designations F19-F22 and F26)

Feature 10 represents a series of in-filling episodes that occurred between the masonry walls of Feature 6 and Feature 9. The feature occurred below Stratum V at approximately 12 cm (4.7 in) bgs, and extended to a maximum depth of 100 cm (39.4 in) bgs. Four soil lenses were recognized in the south profile of Trench 3 and the surface of a fifth soil type was identified in Trench B (Figure 120). In trench 3, the uppermost lens consisted of a 4 to 10 cm (1.6-3.9 in) thick very dark grayish brown (10YR 3/2) sand (F19). F19 was underlain by a thin layer (ca. 4 cm [1.6 in]) of black (10YR 2/1) sand (F20). Two relatively thicker soil packages occurred below F20. F21 consisted of a 32 cm (12.6 in) thick mottled brownish yellow (10YR 6/8) and dark grayish brown (10YR 4/2) clay loam. The lowermost deposit (F22) was an approximately 48 cm (18.9 in) thick layer of black (10YR 2/1) silt loam. The portion of the feature (F26) identified in Trench B consisted of a dark grayish brown (10YR 4/2) silty clay containing stone rubble. No artifacts were recovered in Feature 10.

Feature 11 (Field Designation F24)

Feature 11 represents an in-filling soil lens contained in the window sill (F41) of Feature 6. It was identified in Trench B underlying Feature 1 at approximately 25 cm (9.8 in) bgs. The matrix of the feature consisted of a black (10YR 2/1) silt loam that extended for 10 cm (3.9 in) and terminated at the brick base of the window sill.

Eighty-four (84) artifacts were recovered in Feature 11, consisting of 50 glass, 2 ceramic, 11 metal, and 21 miscellaneous items likely related to the daily activities of the church and school. Glass comprises the largest portion of the assemblage and includes 23 window pane fragments, 15 unidentified container fragments, 9 light bulb fragments, and 2 unidentified fragments. With the exception of the Waterman's Ink bottle described above, the glass assemblage is unremarkable. The window pane fragments are all flat drawn sheet glass, manufactured since 1917 (Fowle 1924:58) and one of the light bulb fragments is from an incandescent bulb, and seven light bulb fragments are unidentified.

The miscellaneous artifact category is comprised of items manufactured of Bakelite, plastic, porcelain and metal electrical items, a wooden pencil top (with eraser), cork, a shell button, and a slate fragment. The Bakelite (ca. 1907 – 1945; Bucher 1996:33; Pittman 1987:57) consist of the Waterman's Ink bottle cap described above and a Navy Pea Coat button. Nine plastic artifacts were recovered, including a fragment of a strip of camera film. The shell button is square and includes a portion of the metal shank.

The 84 artifacts recovered in Feature 11 can be attributed to the daily activities of the school and the surrounding neighborhood prior to its destruction in 1958. Items such as the ink bottle and cap and the pencil fragment may relate directly to the school.

Feature 12 (Field Designation F25)

Feature 12 represents a modern electrical utility trench. It was identified below Stratum VI as a linear gravel trench along the southern edge of Trench B. The electrical line connects an existing light pole in the southern part of the Melody parking lot with a structure at the entrance of the lot. Excavation in that portion of the trench ceased once the feature was recognized as an existing electrical line, and therefore, the feature was not fully exposed. Based on its direction, the trench impacted portions of Features 1, 6, and 7. The feature did not occur in Trench 3 or Trench A. No artifacts were recovered in Feature 12.

Feature 13 (Field Designations F27 and F42)

Feature 13 represents a historic utility trench. It was identified in the eastern edge of Trench B beneath Feature 1 at approximately 54 (21.3 in) bgs. The matrix of the trench (F42) consisted of mottled pale brown (10YR 6/3) and brown (10YR 4/3) silty clay. Segments of joint cast iron and terracotta drainage pipes were uncovered during the excavation of the trench. The iron portion of the pipe exhibited a 15.2 cm (6 in) diameter. The bearing of the pipe suggests that it was placed in a northwest to southeast direction towards the school's foundation. Due to their stratigraphic relationship within Trench B, the drainage pipe was probably installed during or shortly after the construction of the ca. 1884 school. The feature was not observed in Trench 3 or Trench A. No artifacts were recovered in Feature 13.

Feature 14 (Field Designation F30)

Feature 14 represents a demolition episode of undetermined origin, although it may be related to the destruction of earlier buildings (Hopkins 1872, 1882) for the construction of the ca. 1884 Holy Trinity School. The feature consisted of a brownish yellow (10YR 6/8) clay with fragments of brick and stone. It was identified in the eastern half of the north profile of Trench A below Stratum IV between 42 and 76 cm (16.5 and 29.9 in) bgs. In the profile, it appeared to be truncated by Features 15 and 17. Feature 14 was not observed in either Trench 3 or Trench B. No artifacts were recovered in Feature 14.

Feature 15 (Field Designations F33 and F34)

Feature 15 represents a dry stack stone and brick wall that may have functioned as a landscape feature in the courtyard of the Holy Trinity Church and School. It was identified in the northeastern section of Trench A. The wall, which occurred immediately below Stratum IV at 26 cm (10.2 in) bgs, intruded into Stratum I. The base of the feature occurred at 58 cm (22.8 in) bgs. The exposed portion of the dry stack stone wall (F33) exhibited an L-shaped plan. A one-course wide brick element (F34) that reached one to two courses high lined the interior of the north-south section of F33. On average, the individual bricks of F34 measured 21.5 x 10 cm (8.5 x 3.9 in).

Twenty (20) plaster fragments were recovered in Feature 15, described as a dry stone and brick wall in the courtyard between the school and monastery. One surface of the fragments is painted, either red or white, and may be from an interior wall of the school.

Feature 16 (Field Designations F35 and F39)

Feature 16 represents remnants of brick walkway/pavement and prepared floor in the courtyard of the Holy Trinity Church and School. Flanked by Features 15 and 17, it was identified in the eastern half of Trench A. The feature occurred between 35 and 51 cm (13.8-20.1 in) bgs, below a layer of historic fill (Feature 19) and above Stratum I. The upper portion of the feature consisted of a one-course thick, brick surface (F35) arranged in a herringbone pattern. The bricks were placed on a prepared floor that consisted of an 8-cm (3.1 in) layer of mottled dark yellowish brown (10YR 4/6) and very dark grayish brown (10YR 3/2) sandy clay.

Eleven historic artifacts were recovered from Feature 16, all from F39. The assemblage includes 7 ceramic sherds, 3 glass fragments, and 1 wire nail (post ca. 1885; Adams 2002:73). The ceramic sherds are further identified as 4 whiteware (ca. 1820-1900+; Ramsay 1947:152-153), 1 semi-vitreous (1850+; Ramsay 1947:153; Wetherbee 1985:15), 1, redware, and 1 stoneware. Only the whiteware sherds exhibit any decorative attributes. The sherds crossmend and exhibit a transfer printed geometric design in cobalt. The transfer print method of decorating ceramics was popular into the early 1900s (Miller 1991:9; Samford 1997:4). The glass fragments include 2 window pane fragments and a fragment of an unidentified food container.

Feature 17 (Field Designations F32/F36)

Feature 17 represents a masonry support wall for the front steps of the Holy Trinity Church. Comprised of uncoursed rubble, the wall was identified in the western section of the north profile of Trench B. It occurred below Feature 1 at approximately 16 cm (6.3 in) bgs. The feature intruded into Stratum I, reaching a maximum depth of 106 cm (41.7 in) bgs. The upper portion of the wall (F32) appeared to be disturbed, likely as result of the 1958 demolition of this portion of the Lower Hill District for the construction of the Arena (Pittsburgh Sun Telegraph Staff 1958). No artifacts were recovered in Feature 17.

Feature 18 (Field Designation F37)

Feature 18 represents a remnant historic surface identified abutting Feature 15 in the north-central portion of Trench A. The feature consisted of a thin lens of brown (10YR 4/3) silty clay between 1 and 3 cm (0.4-1.2 in) thick. Appearing only in plan, it measured approximately 266 cm (104.7 in) in maximum length and 24 cm (9.4 in) in maximum width, occurring below Stratum III and above Stratum I.

Thirty-five (35) artifacts were recovered in this feature, including 14 glass, 12 metal, 7 ceramic, and 2 miscellaneous artifacts. The glass assemblage is comprised entirely of window pane fragments including 11 with intentionally scratched vertical lines on both surfaces. The 12 metal artifacts consist of heavily

oxidized iron, seven of which are unidentified nails. The ceramic assemblage consists of 3 clay marbles, two pressed porcelain buttons, and an unidentified whiteware fragment. These artifacts, particularly the marbles, buttons, and window pane fragments, may relate directly to the daily activities of the school. All of the 35 artifacts recovered in Feature 18 are small and/or thin, suggesting that they may have fallen through a brick floor or walkway.

Feature 19 (Field Designations F38)

Feature 19 represents historic fill of undetermined origin identified in the north profile of Trench A. It occurred immediately below Stratum IV and above Feature 16 between 20 and 34 cm (7.9-13.4 in) bgs. The matrix of the feature consisted of a yellow (10YR 7/6) compact clay that contained coal and slate fragments. No artifacts were recovered in Feature 6.

ARTIFACTS AND ECOFACTS

The artifacts and ecofacts recovered during Phase I/II investigations at the Holy Trinity Church and School site consist of 212 historic artifacts and 17 faunal elements. The artifact assemblage consists of 107 glass artifacts, 33 ceramic sherds, 28 metal fragments, and 44 miscellaneous artifacts primarily recovered from contexts involving the destruction of the neighborhood in 1958. However, five Features (1, 11, 15, 16 and 18) were identified underlying this destruction rubble and likely contain in situ artifacts.

Glass

The largest group of artifacts in the assemblage is the glass, comprised of whole and partial containers, window pane fragments, light bulb fragments, an eye dropper, unidentified glass tubes, and tableware artifacts.

The identifiable container glass, including 15 whole containers (Figure 121), consists of items such as beverage bottles, pharmaceutical bottles, cold cream jars, ink and glue bottles, and perfume bottles. Several of these containers are embossed with product labels or labels identifying the bottling company. When possible, information was gathered on the product or bottling company. However, the most important attributes in identifying the containers in this assemblage were the maker's marks and marks on the containers that identify the method of manufacture.

Thirteen toiletry related containers were recovered, all but one during Phase I survey. Twelve of these containers are whole and are identified as Pond's cold cream, perfume, Jergens lotion, and Noxzema containers. While these products have been in use for many years; Noxzema since 1914 and Pond's since ca. 1840s, maker's marks on the containers narrow these dates considerably. The Noxzema jar exhibits an Owen's scar, a manufacturing mark that is often seen on containers manufactured ca. 1904-early 1950s (Jones and Sullivan 1984:38-39). The name Cheesebrough does not appear on the Pond's jar, suggesting it was manufactured prior to 1955, when Pond's merged with Cheesebrough (Ponds Institute 2012). Three of the containers exhibit a maker's mark for the Hazel -Atlas Glass Co., that was used ca. 1920-1964 (Jones and Sullivan 1985:38-39), and the Jergens bottle was manufactured by the Carr-Lowery Glass Co., and exhibits a maker's mark used ca.1920-1963 (Toulouse 1971:135). The remaining toiletry containers were not identifiable beyond their basic function.

Seven glass fragments were identified as beverage bottle fragments. The assemblage includes 3 liquor bottles, 2 soda bottles, 1 beer bottle, and 1 possible soda bottle. The liquor bottle fragments were identified based on their shape, the common half-pint flask. The soda bottles were identified based on shape; however two of them are embossed with bottling company logos, one of which is a local company: The Imperial Bottling Company of Pittsburgh. The second soda bottle fragment exhibits a portion of a logo: "...C. BUF..." in large letters over "PIT...", likely from a local Pittsburgh company. A third

possible soda bottle fragment is embossed "Scotch.../Registered/Phila." The beer bottle exhibits a maker's mark, "W.F. & S. MIL...". This mark resembles the mark used by William Franzen & Son, Milwaukee, WI ca. 1900-1929 (Toulouse 1971:536-537).

The container assemblage also includes three ink bottles and a glue container. With the exception of one ink bottle, these were recovered during the Phase I survey. As with the toiletry containers, two of these are embossed with brand names of inks that have been manufactured for many years, but dates of manufacture and use can be determined based on maker's marks. One of the ink bottles is embossed "Higgins Drawing Ink". Higgins Ink has been manufactured since 1880 and is still made today (Higginsinks.com 2013). However, the mark on this bottle shows that the bottle was manufactured by the Hazel Atlas Glass Company of Wheeling, WV ca. 1920-1964 (Toulouse 1971:239). The second ink bottle is a two ounce Waterman's ink bottle recovered from Feature 11 during Phase II excavations (Figure 122). It exhibits an Owen's Illinois Glass Company maker's mark used ca. 1929-1954 (Toulouse 1971). One container is identified as a pharmaceutical bottle. This whole bottle is embossed with a dosage mark, "3iii", and the maker's mark "Duraglass" in script that was used by the Owens-Illinois Glass Company beginning in 1940 (Toulouse 1971:403).

The majority of the container glass was recovered during the Phase I survey in Trench 3, from a stratum labeled General Collection. These artifacts have been redistributed by the demolition process and are not in situ. Two containers were recovered from features: a bottle exhibiting a maker's mark of the Glenshaw Glass Company and dating ca. post 1932 (Toulouse 1971:211) was recovered in Feature 1, the demolition debris over the excavated portion of the site. The second, a whole Waterman's Ink bottle, was recovered in Feature 11, and was likely dropped by one of the students, priests, or nuns on the school grounds.

The four glass tableware fragments in the assemblage include a tumbler fragment, a fragment of a possible refrigerator box, and two unidentified fragments. The tumbler fragment was manufactured by Libbey Glass Company of Toledo, Ohio and exhibits a mark that was used beginning in 1955. This fragment was recovered during the Phase I survey from the stratum labeled General Collection.

One glass artifact was identified as a lid for a dressing table jar. It is opaque aqua with a small handle and concentric design on exterior (Figure 123).



Figure 121: Assortment of whole glass containers recovered at the Holy Trinity Church and School site



Figure 122: Waterman's ink bottle recovered in Feature 11.



Figure 123: Glass lid recovered at the Holy Trinity Church and School Site.

Forty (40) flat glass fragments were recovered at the Holy Trinity Church and School site, all during Phase II testing and all but two from Features 11 and 18. The provenience of these fragments suggests that these are window pane fragments from either the school or the monastery. All but one of the fragments were manufactured using the flat drawn sheet method (since 1917; Fowle 1924:58). Interestingly, 11 of the fragments recovered from Feature 18 exhibit deliberately made linear scratches on both side of the fragments. The assemblage also includes three glass tube fragments, an eye dropper, and nine light bulb fragments. The glass tubing and eye dropper were within the General Collection and the light bulb fragments were all recovered from Feature 11.

Ceramic Artifacts

Thirty-three (33) ceramic artifacts were recovered during Phase I/II investigations at the Holy Trinity Church and School site. The assemblage is comprised of whiteware, semi-vitreous ware, stoneware, porcelain, redware. The artifacts were recovered from the General Collection and Features 1, 11, and 18.

The 11 whiteware sherds are all identified as tableware. Nine are decorated with transfer printed designs. The decorative motifs include geometric and floral. Transfer printed ceramics first appeared in the eighteenth century and were beginning to be replaced by applied decal decorations in the early twentieth century (Miller 1991:9; Samford 1997:4). The remaining whiteware sherds are unremarkable.

Six semi-vitreous sherds were recovered. Semi-vitreous ware, a harder, more durable ceramic than whiteware, was first produced in the 1850s (Ramsay 1947:153; Wetherbee 1985:15). This type of ware was often used in institutional or restaurant settings. Five sherds are identified as tableware and include portions of both dining and serving vessels. One, approximately half of a small plate exhibits a maker's mark consisting of a portion of the impressed "Greenwood China/Trenton, NJ". This mark was used beginning in 1886 (DeBolt 1994:58). Two other sherds exhibit maker's marks. An entire small creamer with pouring lip, decorated with a thick green band above a thin green band just below the lip and a thin green band around the center, exhibits a maker's mark consisting of JACKSON/Vitrified/CHINA inside a circle. Based on this mark, the creamer was manufactured ca. 1923-1946 (Cunningham 1995:161). A base and body sherd of an unidentified tableware vessel exhibits a portion of a maker's mark consisting of "The Sebring..." in script, denotes the Sebring Pottery Company, which operated from 1887-the early 1940s (Lehner 1988:414). The base and body portion of a shaving cup was recovered with the maker's mark of Mayer China, which was established in 1881 (Figure 124). The remaining semi-vitreous tableware sherds are unremarkable.

The three clay marbles are of a white-bodied earthenware and were all recovered from Feature 18. Clay marbles were common toys produced between 1884 and 1920 (Randall 1971:103-104). These dates correspond with the highest enrollment for the school, which started to decline in the years following World War I (Dressel 1932:59).

Four stoneware sherds were recovered, all crock or jug fragments. One is the rim and body portion of a small jug that probably held gin (Figure 125), the others are crock fragments.

The porcelain artifacts consist of four buttons, a tile fragment, and a fragment of an electrical insulator. Redware sherds consist of two unidentified container fragments. The four pressed porcelain buttons were recovered from Feature 18 and trench spoil. All of the buttons measure less than 15 mm in diameter, suggesting that they were underclothing, shirt, or waistcoat buttons (Figure 126) (Lindbergh 1999:51).



Figure 124: Base and body fragment of a probable shaving mug with maker's mark on base.



Figure 125: Top portion of stoneware jug, probably for gin.

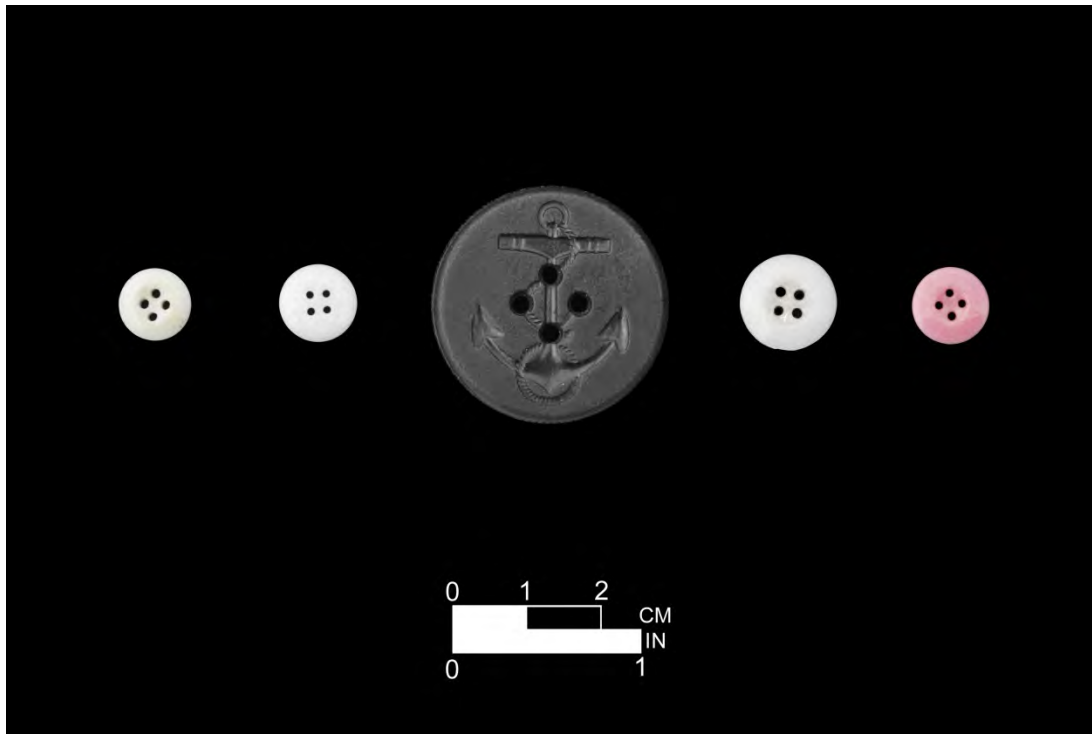


Figure 126: Pressed porcelain and Bakelite buttons recovered at the Holy Trinity Church and School site.

Metal Artifacts

Twenty-eight (28) metal artifacts were recovered at the Holy Trinity Church and School site, 26 identified as iron or steel and two unidentified brass artifacts. The iron or steel artifacts include 23 that are described as “oxidized” or “heavily oxidized.” The remaining three consist of a watch back and two nails, further identified as one cut nail (post ca. 1790; Edwards and Wells 1993:15-16) and one wire nail (post ca. 1885; Adams 2002:73). The watch back was recovered from Feature 11. It is stamped: FOND ACIER/INOXYDABLE/2819”, a French statement that translates to “stainless steel back”. The watch is likely Swiss made. All but two of the metal artifacts were recovered from Features 1, 11, and 18. The non-feature artifacts are described as one wire nail and one iron rod, both from the General Collection.

Miscellaneous Artifacts

The 44 miscellaneous artifacts consist of those artifacts in the assemblage that are not glass, ceramic, or metal. The majority of the miscellaneous category consists of items such as plaster fragments, unidentified plastic fragments, cork fragments, and other non-diagnostic items. However, seven artifacts, a Bakelite ink bottle cap and four buttons, exhibit diagnostic attributes. The bottle cap recovered in Feature 11 is likely the cap from the Waterman’s Ink bottle recovered in the same feature. The buttons include a Bakelite Peacoat button and two shell buttons (Figures 127 and 128). All but one of the miscellaneous artifacts were recovered from Features 11, 15, and 18. Twenty of the miscellaneous artifacts are plaster fragments recovered in Feature 15 and are likely part of an interior wall of the school.



Figure 127: Bakelite Waterman's ink bottle cap recovered in Feature 11.

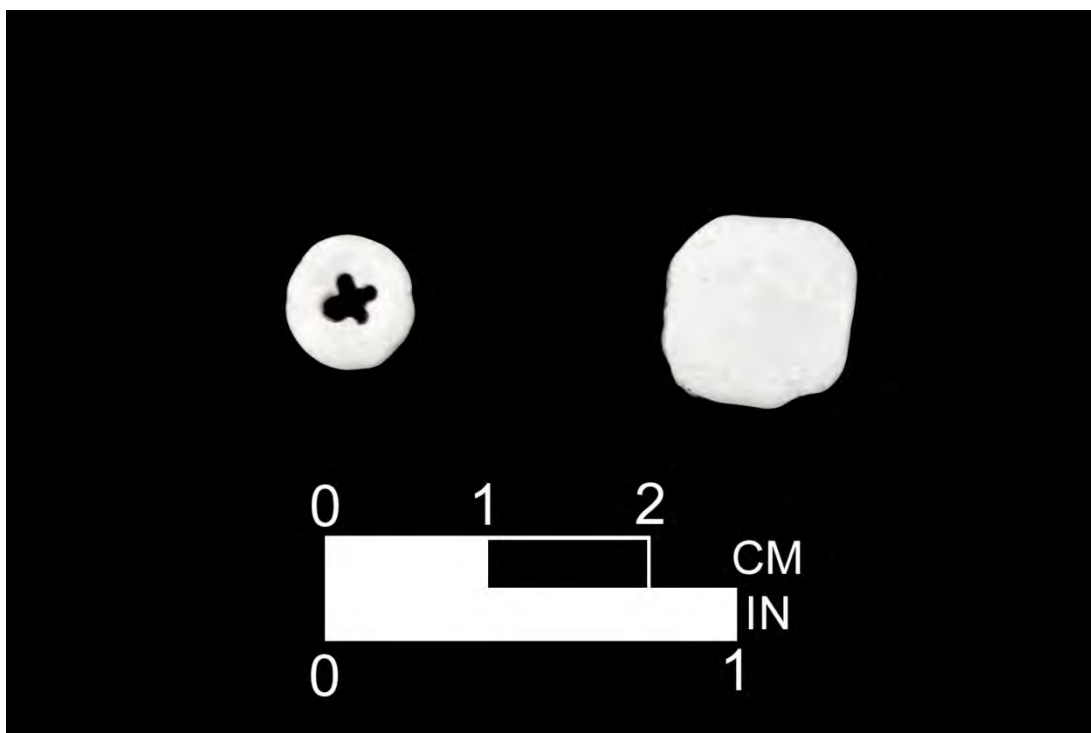


Figure 128: Shell buttons recovered at the Holy Trinity Church and School site.

Faunal Material

Seventeen (17) vertebrate faunal elements, with a combined weight of 259.1 g (9.1 oz), were recovered during testing at 36AL637. All of the faunal material was recovered from the General Collection (n=9), Feature 11 (n=3), and Feature 18 (n=5). The recovered material was classed as Mammalia (65%, n = 11) and Aves (35%, n = 6). The mammalian material was comprised of 2 indeterminate taxa, 3 pig (*Sus scrofa*), 4 cow (*Bos taurus*), and 2 rat (*Rodentia*). The avian material was comprised entirely of 5 indeterminate taxa and 1 turkey (*Meleagris gallopavo*).

Identifiable elements include: *Sus scrofa* (1 humerus, 1 tibia, 1 vertebra) *Bos taurus* (1 humerus, 1 rib); *Rodentia* (1 femur, 1 incisor); indeterminate *Aves* (1 humerus, 1 tibiotarsus, 3 egg shell); *Meleagris gallopavo* (1 tarsometatarsus). Although only two avian taxa are identified in the assemblage, the relative size of the indeterminate elements suggests they either represent additional specimens of turkey or similarly sized domesticates such as chicken, duck, or game hen.

Of the faunal elements examined, all of the cow and pig material exhibits cut marks as a result of butchering. None of the elements were calcined as a result of thermal alteration although many presented a brownish coloration suggesting the bone had been boiled/cooked. The faunal assemblage is entirely consistent with historic domestic remains.

Floral Material

Floral material recovered at the Holy Trinity Church and School site consists of 104 grape seeds recovered from the soil adhered to artifacts within the General Collection.

SUMMARY AND RECOMMENDATIONS

The Holy Trinity Church and School site was identified based on the presence of subsurface architectural features, including the foundation and support walls of the Holy Trinity School. Through the use of historic mapping, documents, and photographs the locations of the three buildings on the site were identified. Phase II excavations were planned based on these identified locations, and the work exposed foundation walls of the school and possible landscape features within the school yard. None of the identified features are believed to be parts of the church or monastery. In total, 212 historic artifacts and 17 faunal elements were recovered during the Phase I/II investigation. Forty-four percent (n = 93) of the artifacts originated in the 1958 demolition episode (Feature 1) that capped the site. The site's artifact assemblage, dominated by glass containers, reflects a date range from the late nineteenth century to the first half of the twentieth century. The faunal assemblage is consistent with a domestic site. However, only broad assumptions can be made about the diet of the inhabitants of the site because of its small size.

Features 11 and 18 are the only two features containing artifacts that were identified in situ. Artifacts recovered from these features are directly connected to activities at the school. These include an ink bottle and cap, pencil fragment, clay marbles, and pressed porcelain, shell, and Bakelite buttons. The majority of the artifacts from these features are small and/or thin. For Feature 11, the artifacts may have accumulated as sheet wash or similar processes within the exposed window sill of the school's foundation. As for Feature 18, they may have fallen through a brick floor or walkway in the school yard.

The Holy Trinity Church and School site was continuously occupied from approximately 1856 until 1958 when the buildings were sold just prior to their demolition. Artifacts recovered at the site reflect the twentieth century portion of this occupation. Few of the artifacts date to the nineteenth century and although date ranges were assigned to 82 artifacts, many of these dates reflect broad dates of manufacture and not years of use. A large portion of the assemblage was recovered from a single un-stratified context. This context, identified as Feature 1, represents a continuous layer of destruction debris related to the

1958 demolition of the church, monastery, and school at the Holy Trinity Church as well as a small section of row houses between 92 and 98 Crawford Street in the adjacent historic lots. Since multiple properties were demolished simultaneously, the artifacts recovered from Feature 1 may not be representative of the use and occupants of the Holy Trinity Church and School site. Deposits that retain integrity were identified as Features 11 and 18. However, artifacts from these contexts tended to be small and non-diagnostic. Furthermore, of the 119 artifacts recovered from these features, only two (< 2%) exhibited chronological attributes more specific than broad dates of manufacture.

Due to the loss of association between a sizeable portion of the artifact assemblage and discrete cultural deposits that resulted from the 1958 demolition episode, coupled with a small artifact assemblage resulting from an overall lack of artifact bearing deposits, the Holy Trinity Church and School is recommended as not eligible for inclusion in the NRHP. Any additional excavations would produce redundant data. Further excavations would yield data on the foundations of the multiple buildings that once stood at the site. However, valuable descriptive information about them was already accessed through historic maps, photographs, and other sources (i.e. Dressel 1932). Furthermore, deposits that may contain significant data are not anticipated to occur at the site, with features similar to Feature 11 and 18 likely being the norm. Therefore, no additional archaeological work is recommended.

Non-Site Areas

Trench 2 was located in the northeastern corner of Lot 2-C-300 near the intersection of Crawford Street and Bedford Avenue (Figure 46). It is situated within an asphalt parking lot at an elevation of 283 m (928 ft) amsl. The trench measured 4.6 m (15.1 ft) in length (E-W) by 1.6 m (5.3 ft) in width (N-S) and excavated to a maximum depth of 1.4 m (4.6 ft). UTM coordinates for the southwest corner are N4477478.34 E585809.79. It was emplaced to identify whether intact natural soils (A Horizon) was preserved under historic roadbeds.

Trench 2 was excavated to a maximum depth of 140 cm (55 in) bgs identifying two natural soil horizons and a historic feature underlying fill and asphalt (Figure 122). The uppermost level was an approximately 10 cm (3.9 in) thick asphalt parking lot surface (Field Designation F3). Underlying the asphalt was Field Designation F4 described as a brown (10YR 4/3) gravelly silt loam that extended to an average depth of 30 cm (11.8 in) below ground surface (bgs). The F4 likely represents a fill episode related to the 1957 demolition of the Lower Hill District for the construction of the Arena. A truncated B horizon (Field Designation F5) was identified underlying F4. The F5 is described as a reddish brown (2.5YR 4/4) silt loam with manganese inclusions. It originated 30 cm (11.8 in) bgs and extended to the base of excavations at approximately 140 cm (55 in) bgs. A second B Horizon (Field Designation F8) was observed at the base of the trench. It is described as a light yellowish brown (10YR 6/4) silty clay with siltstone and manganese inclusions.

Feature 1, a possible in-filled manhole, was identified in the western half of Trench 2 (Figure 123). The feature consisted of a soil matrix described as a brown (10YR 4/3) silty clay loam mixed with brick, ash, and cinders (Field Designation F7) enclosed by a circular courses of brick (Field Designation F6). The top of Feature 1 was identified underlying the fill layer (F4) at 44 cm (17.3 in) bgs and extended to an unknown depth. The diameter of the feature was 130 cm (51.2 in). The feature was not excavated and no artifacts were recovered from the trench.

Trench 5 was located in along the northern edge of Lot 2-C-300 near adjacent to Crawford Street (Figure 54). It is situated within an asphalt parking lot at an elevation of 277 m (910 ft) amsl. The trench measured 4.6 m (15.1 ft) in length (E-W) by 1.6 m (5.3 ft) in width (N-S) and excavated to a maximum depth of 10 cm (3.9 in). UTM coordinates for the southwest corner are N4477373.83 E585872.64. It was emplaced to identify whether intact natural soils (A Horizon) was preserved under historic roadbeds.

Trench 5 was excavated to a maximum depth of 10 cm (3.9 in) bgs identifying one feature underlying fill and asphalt (Figure 124). The uppermost level was an approximately 10 cm (3.9 in) thick asphalt parking lot surface (Field Designation F3). Underlying the asphalt was Field Designation F4 described as a brown (10YR 4/2) gravelly silt loam that extended to a maximum depth of 12 cm (4.7 in) bgs. The F4 likely represents a fill episode related to the 1957 demolition of the Lower Hill District for the construction of the Arena.

Feature 1 (F5) was identified underlying the entire extent of Trench 5 (Figure 125). The feature is a portion of Wylie Avenue consisting of a brick roadbed. The top of Feature 1 was identified underlying the fill layer (F4) at 12 cm (4.7 in) bgs. The brick roadbed is 10 cm (3.9 in) and slopes northeast to southwest. No artifacts were recovered from the trench.

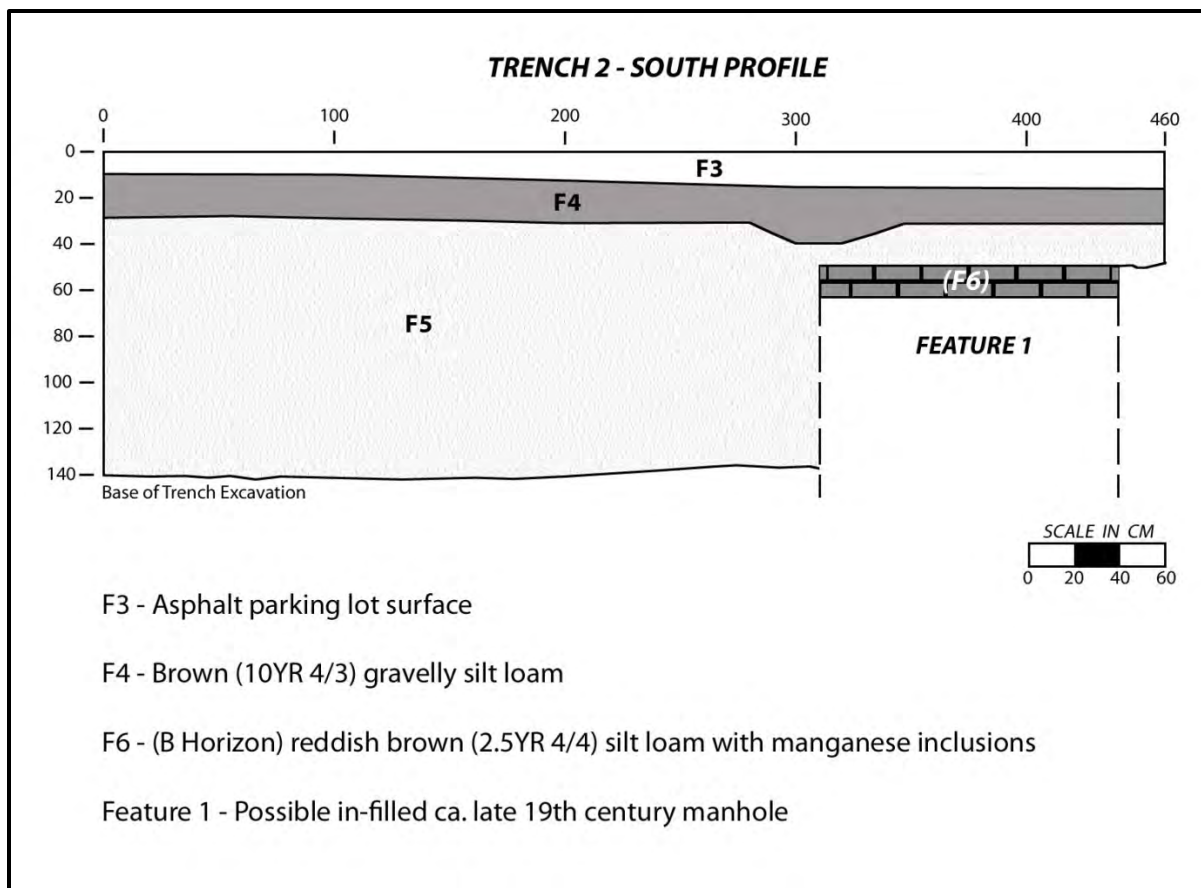


Figure 129: Trench 2 – South Profile.



Figure 130: Trench 2 – showing Feature 1 (F6 and F7), looking west.

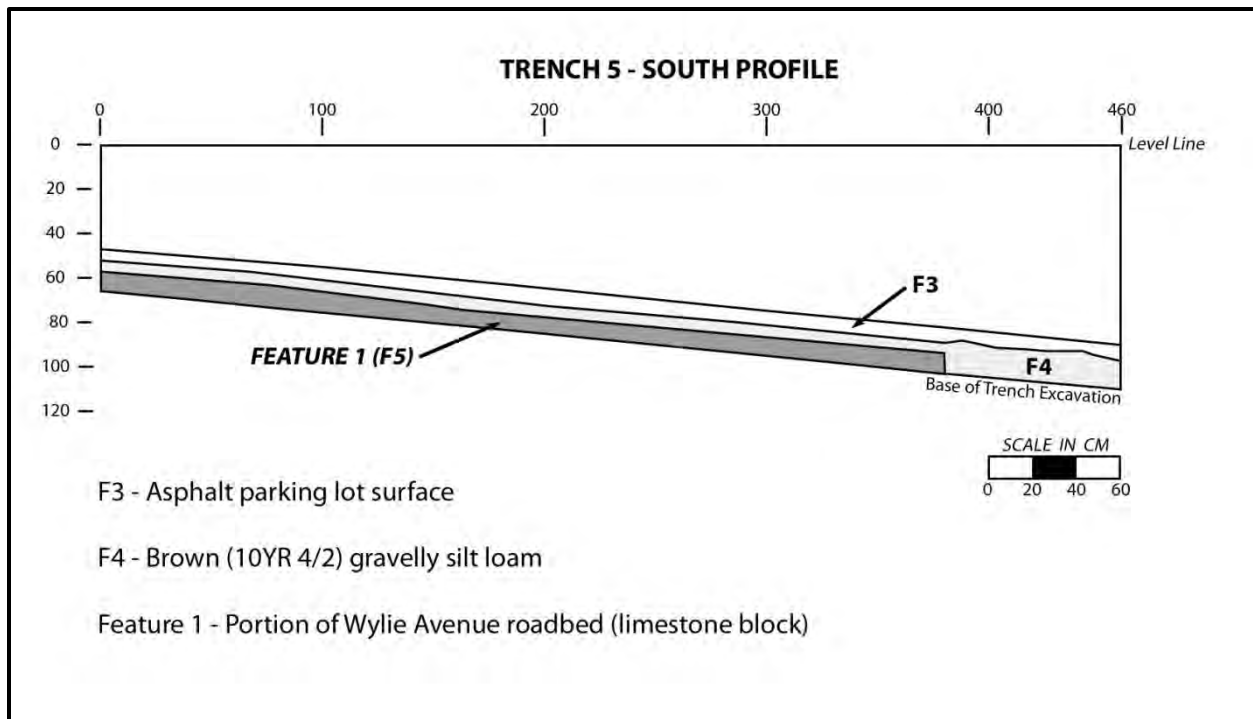


Figure 131: Trench 5 – South Profile.



Figure 132: Trench 5 – showing Feature 1 (F6 and F7), looking west.

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CONCLUSIONS

Summary of Field and Archival Investigations

Phase I/II archaeological investigations were conducted within the Lower Hill Redevelopment Project Area on behalf of the Sports and Exhibition Authority of Pittsburgh and Allegheny County (SEA) as part of the efforts of the SEA to redevelop the 28 acre site of the Civic Arena. The 11.3 ha (28 ac) APE for the Lower Hill Redevelopment Project Area encompasses the former location of the Civic Arena and its parking lots. Examination of construction plans and topographical maps revealed that only the 4.0 ha (9.8 ac) easternmost portion of the Project Area, the Melody Tent Lot, was suitable for archaeological testing. The area west of the Melody Tent lot was previously excavated as part of the construction of the arena, with up to 7.62 m (25 ft) of elevation change. Based on this information, it was determined that only the Melody Tent Lot would be examined archaeologically.

Phase I survey in this portion of the APE resulted in the identification of three archaeological sites: the 29 Fulton Street site (36AL635), the 88-90 Crawford Street site (36AL 636), and the Holy Trinity Church and School site (36AL637). Phase II testing was recommended for these sites to further investigate their potential NRHP eligibility. These excavations resulted in the recovery of nearly 3,000 artifacts, two-thirds of which were recovered from the 29 Fulton Street site. A review of historic mapping, city directories, census data, and newspaper archives supplemented the research of these parcels.

Additionally, intensive historic background research was conducted for 15 historic parcels within the boundaries of the Melody Tent Lot. This research provided contextual information regarding the structures located on these parcels and the residents in this part of the Lower Hill District. The information gathered from the resources listed above not only revealed the names of the residents of these parcels, but also a glimpse into the evolution of the Lower Hill District from a neighborhood where several waves of immigrants first settled to a center of African-American culture that one prominent Harlem Renaissance poet labeled the “Crossroads of the World” (Glascoe 1989).

Four thematic study units were defined for the overall Lower Hill Redevelopment project in order to focus and guide the excavations and historic research. These study units include ethnicity, socio-economics, diet and health, and early commercial and urban development. The recovery of artifacts from three of the identified sites helped to address these themes. The archival research into the 15 historic parcels coupled with the information gathered during the archaeological investigations revealed many details about life in the Lower Hill prior to its demolition. The 29 Fulton Street and 88-90 Crawford Street sites were multi-family residential loci. The research revealed the transient nature of the occupations and multiple uses of these properties over time. Although these sites produced a large quantity of artifact, the vast majority could not be associated specifically with any of the multiple occupations. The Holy Trinity Church and School site was not only a church and school, but also a monastery and nun’s residence. Artifacts recovered from this site do not compare well with those from the residential sites. Very few artifacts were recovered from the church and school site and those that were recovered were largely non-diagnostic and functionally unidentifiable fragments.

The historic research showed that at least three prominent citizens lived and worked within the four to five block area encompassed by the modern Melody Tent Lot. Clifford McEvoy, a prominent jeweler from the 1920s through the 1950s, lived and worked at 1411 Wylie Avenue. Gus Greenlee, owner of the Crawford Grills and the Negro League baseball team the Pittsburgh Crawfords opened his first restaurant at 1407 Wylie Avenue. Roosevelt Richardson, who grew up at 1401 Epiphany Street, was a meteorologist for the Tuskegee Airmen and later became a prominent physician in the Hill District and other African-American neighborhoods in Pittsburgh.

Site Significance and Eligibility Recommendations

29 FULTON STREET SITE (36AL635)

The 29 Fulton Street site consists of the foundation and adjacent walkway of 29 Fulton Street. The main feature of the site is a large historic dump identified within the basement of the structure containing over 2,000 artifacts and faunal material, including over 100 whole glass bottles. In addition to this feature, a buried (northern) foundation wall of the structure on the neighboring property at 31 Fulton also was exposed. Based on the analysis of the artifacts, the historic dump on the 29 Fulton Street site was created between ca. 1925 and 1935. Historic research identified the residents of this address and likely the creators of this historic dump. The ethnicity of the residents changed over time. The first residents were recorded as mulatto from the 1850s through the 1870 census. Residents recorded in the 1880 census were listed as white, of Irish descent. The 1900 census lists Irish-Americans as well. All of the residents in the 1910, 1930, and 1940 census are recorded as African-American. The occupants' socio-economic status also consisted of a mix of skilled through unskilled workers as well as white collar job holders (usually proprietors of small businesses and clerical workers). Evidence of diet and health at the 29 Fulton Street site is evidenced by the container glass and faunal material recovered from the historic dump (Feature 2). Analysis of these artifacts and ecofacts show that the occupants of the 29 Fulton Street site consumed beverages such as whiskey, wine, soda, and milk. The recovered faunal material consisted pig foot bones, chicken and other poultry bones, and oyster shells. Several bottles that once contained digestive aids and patent medicines were also recovered. These artifacts suggest that the residents suffered from ailments associated with poor diet, and poor and working class living conditions in the first half of the twentieth century. Less evidence was archaeologically apparent for the last thematic study unit, early commercial and urban development. The background research into this property contributes to the knowledge of the development of this area of Pittsburgh. Sanborn Fire Insurance maps and Hopkins maps show the evolution of this lot beginning in 1872. City directories and newspaper archives list this address as an Elk's lodge, Iron City Lodge, No. 17, ca. 1910-1923. During this time period, the address was also used as a multi-family residence. The Elks were an important benevolent association in the Hill District and eventually built a large lodge hall on Centre Avenue. The presence of the Elks at 29 Fulton Street is evidence of how the neighborhood was developing, where some residents were becoming successful enough to help others.

The site is not considered eligible for listing in the NRHP under Criteria A, B, or C since it is not associated with events that have made a significant contribution to the broad patterns of our history, is not associated with the lives of persons significant in our past, or does not embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction. However, the archaeological investigations and historic research of the site yielded information important to Pittsburgh and Pennsylvania history, including information on the socio-economic status, ethnicity, and diet and health of the residents of this portion of the City of Pittsburgh. Therefore, the site is recommended as eligible for nomination to the NRHP under Criterion D. However, over 43% of the site has been excavated as part of the combined Phase I and II investigations, and it is unlikely that further archaeological work or historic research would yield additional important information. As a result, no further work is recommended at the 29 Fulton Street site.

88-90 CRAWFORD STREET SITE (36AL636)

The excavated portion of the 88-90 Crawford Street site consists of the shared brick courtyard within the yards behind the two row houses and the alley behind 88 and 90 Crawford Street. Although the excavations revealed a probable brick-lined privy, no artifacts were recovered within this feature. The

majority of the 617 recovered artifacts is associated with the destruction rubble and, therefore, was not considered in situ. Research into the history of these lots revealed that the residents were transient, generally not living at these addresses for longer than a year. The ethnicity of the residents changed over time. The first residents were recorded as Irish and Irish-American. Residents recorded in the 1880 census were listed as African-American. The 1900 census lists Polish and Russian (mostly Jewish) immigrants and the 1920 census identifies the residents as Romanian (also Jewish) immigrants. By 1940, all of the residents are recorded as African-American. This trend is similarly reflected throughout the APE. The occupants' socio-economic status also varied, as a mix of people in skilled through unskilled labor jobs as well as white collar positions (usually proprietors of small businesses and clerical workers) resided at these addresses. Diet and health is evidenced by the container glass and faunal material recovered during archaeological excavations. All forms of beverage containers were recovered, including alcohol, soda, and milk containers. Few food containers were recovered. Several patent medicine bottles were recovered, including Bayer aspirin and Sloan's Liniment. Unlike the assemblage at the 29 Fulton Street site, no digestive aid containers were recovered. However, the majority of these artifacts and ecofacts were recovered from rubble likely associated with the destruction of these structures and it cannot be said with certainty that the artifacts were used by the residents of 88 and 90 Crawford Street. Less evidence was archaeologically apparent for the last thematic study unit, early commercial and urban development. The background research into these properties contributes to the knowledge of the development of this area of Pittsburgh. Sanborn Fire Insurance maps and Hopkins maps show the evolution of these lots beginning in 1872. The WPA Home Survey of 1937 noted that these properties were in "very poor condition" and city directories do not list these addresses, or nearby 82 and 84 Crawford Street, after 1943, suggesting that they had been demolished by this date.

The site is not considered eligible for listing in the NRHP under Criteria A, B, or C since it is not associated with events that have made a significant contribution to the broad patterns of our history, is not associated with the lives of persons significant in our past, or does not embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction. The site is also not considered eligible under Criterion D due to a lack of association between the majority of the artifact assemblage and discrete cultural deposits. In total, 28% of the site was excavated during the combined Phase I/II investigations, and these investigations were entirely focused on identifying cultural deposits in portions of the historic lots that were devoid of foundations. Any additional excavations would only produce redundant data on the buildings that once stood at the site since valuable descriptive information about them was accessed through historic maps, photographs, and the WPA Home survey project. Therefore, no further archaeological work is recommended.

HOLY TRINITY CHURCH AND SCHOOL SITE (36AL637)

The Holy Trinity Church and School site consists of the church, school, schoolyard, and monastery that were located on these grounds. Excavations revealed portions of the school's foundation and basement and the school yard between the school and the monastery. The excavation of the foundation and basement of the school and a portion of the yard resulted in the recovery of 212 artifacts, primarily from the demolition episode. A small number of artifacts are defined as being related to the children or the daily life at school (i.e. marbles and ink bottles), but it is unlikely that further investigations would result in the discovery of additional features or important archaeological information. The thematic study units were the least useful in investigating the Holy Trinity Church and School site. The site is not residential or commercial, and revealed few details of typical daily life in the Hill District.

The site is not considered eligible for listing in the NRHP under Criteria A, B, or C since it is not associated with events that have made a significant contribution to the broad patterns of our history, is not

associated with the lives of persons significant in our past, or does not embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction. The site is also not considered eligible under Criterion D due to a lack of association between a sizeable portion of the artifact assemblage and discrete cultural deposits, coupled with a small artifact assemblage resulting from an overall lack of artifact bearing deposits. Any additional excavations would produce redundant data. Further excavations would yield data on the foundations of the multiple buildings that once stood at the site. However, valuable descriptive information about them was already accessed through historic maps, photographs, and other sources (i.e. Dressel 1932). Furthermore, deposits that may contain significant data are not anticipated to occur at the site. Therefore, no additional archaeological work is recommended.

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APPENDIX I: ARTIFACT TABLES

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APPENDIX II: REPORT SUMMARY FORM

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APPENDIX III: PENNSYLVANIA ARCHAEOLOGICAL SITE SURVEY FORMS

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**APPENDIX IV: HOPKINS MAPS SHOWING LOCATIONS OF INVESTIGATED
PROPERTIES**

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APPENDIX V: SANBORN MAPS SHOWING LOCATIONS OF INVESTIGATED BUILDINGS

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APPENDIX: VI: CITY DIRECTORY AND CENSUS INFORMATION TABLES

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APPENDIX VII: COURIER ARTICLES

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